

# AGRICULTURAL OUTLOOK

March 1989

• Economic Research Service  
United States Department of Agriculture

What's Ahead for  
Wheat Yields?

# AGRICULTURAL OUTLOOK

March 1989/AO-150

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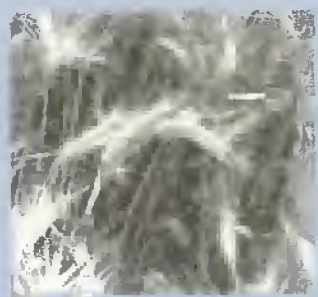
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# In Brief . . . News of World Grain Stocks, Winter Wheat Seedings, the Cattle Cycle

Due to last summer's drought and relatively strong demand, world grain stocks at the end of 1988/89 are expected to fall 30 percent to 279 million tons, the lowest since 1977/78. Ending stocks will be less than 17 percent of annual consumption, the lowest since 1974/75. Most of the decline is in U.S. stocks. But larger acreage and more normal yields, particularly in the U.S., are expected to halt the drop in stocks in 1989/90.

Winter wheat seedings for 1989 are estimated at 54.5 million acres, about 12 percent above a year earlier. Acreage was pushed up by higher prices last fall and sharply lower acreage reduction program requirements. The increase was less than many expected, as dry soils hampered timely sowing in some areas.

Poor weather in parts of the winter wheat area is raising some concerns about yields. Warm and dry conditions across much of the Central and Southern Plains in the early winter left plants vulnerable to winterkill. The blast of arctic cold that followed may have reduced yield potential. Nonetheless, generous rain or snow in March and April may allow most of the crop to recover.

Because the cow herd and heifer retention are up from a year ago, the liquidation phase of the cattle cycle appears over. Even though herd expansion will boost red meat supplies in the long run, it will tighten supplies in coming months. Beef production is expected to be down 3 percent this year. A decrease in per capita red meat consumption will be more than offset by an increase in poultry consumption, pushing total red meat and poultry consumption slightly higher this year.

Hybrid wheats have not yet been able to compete with semi-dwarf wheat varieties, because semi-dwarfs continue to post greater yield growth with lower seed costs. This could change if hybrids consistently yield 15-20 percent over semi-dwarfs, or if the price of hybrid seed falls relative to the semi-dwarfs. However, hybrids are more sensitive to



dry growing conditions. Because weather concerns are more acute this year, farmers may be more cautious about adopting the hybrids.

Last year's drought continues to have a lingering effect on the prices of potatoes, dry beans, processing vegetables, tart cherries, and apples. Prices of all foods are expected to rise 3-5 percent this year. The expected increases are about the same as in the past 2 years, when food price inflation averaged 4.2 percent a year. The outlook for food prices partially depends on the continuing economy-wide expansion.

For the first half of 1989, relatively small movements in the overall inflation rate could determine the economy's direction. If inflation subsides to the lower end of the 3.5- to 4.5-percent range expected by most analysts, interest rates should remain steady and the expansion should continue.

However, should the underlying inflation rate surge, a tighter monetary policy could boost interest rates and cut demand. This would dampen inflation, but also slow economic growth. Preliminary data show that the economy grew at

an inflation-adjusted 3.8 percent in 1988, the fastest in 3 years. Consumer prices rose 4.4 percent, matching 1987's increase.

The 1988 drought cut annual real GNP growth by about 0.4 percent, according to the Department of Commerce. While the drought had only a small effect on annual GNP, it markedly affected the quarterly growth pattern. The real GNP growth rate was down an annualized 1.1 percentage points in the fourth quarter. About half of the drought's effect was accounted for in the fourth-quarter estimates. First-quarter 1989 real GNP growth will be higher as farm output estimates return to normal.

Farmland held by the major farm lenders fell about a million acres during first-half 1988, and is expected to continue declining. The holdings, acquired mostly through foreclosures, were valued at \$3.3 billion, down about \$500 million from the mid-1987 peak. The drop in lenders' holdings reflects an improving farm economy and rising land values. Earlier fears that lenders would dump farmland on weak land markets now appear unfounded.

The improving farm financial outlook will save more agricultural commercial banks from failure in 1989. Agricultural bank failures, after setting a post-Depression record of 75 in 1987, fell to 41 in 1988. They may be the same to sharply lower in 1989 despite last year's drought. Total bank failures exceeded 200 in each of the past 2 years, and also set post-Depression records. But total failures may be closer to 100 this year if the economy continues expanding, another drought does not develop, and oil prices stabilize or increase.

A European Community ban on imports of meat treated with growth hormones went into effect on January 1. The U.S. retaliated with prohibitive duty increases. Meetings between U.S. and EC officials on February 17-18 resulted in a 75-day truce in the dispute's escalation.



## Agricultural Economy

### DROUGHT AND LEGISLATION AFFECT FARM ECONOMY

The biggest change in the agricultural environment for 1989 is the drawdown of stocks. Stocks of wheat, corn, and soybeans carried into the 1989/90 marketing season probably will be less than half those carried into 1988/89, although corn stocks will still be plentiful. Cotton stocks, however, will be much larger. Even with some acreage expansion and

normal yields, it could take several years to rebuild wheat stocks to normal levels, because production will be only moderately above consumption.

Program decisions for 1989, made under the Food Security Act of 1985 (FSA) last summer and fall, attempted to maintain U.S. trade shares, farm incomes, and appropriate stocks without incurring excessive Government costs.

By law, acreage reduction announcements must be made before crops are planted, and thus are based on anticipated market demand and the assumption of "normal" weather.

As the 1988 drought reemphasized, program decisions carry risks, especially when stocks are near or below normal. Acreage reduction programs may exacerbate the effects of poor weather and lead to inadequate stocks and uncompetitive U.S. export prices. The outcome for grains and soybeans may influence the next farm bill debate more than have events in any year since the FSA was enacted.

#### Program Provisions Change With Conditions

Federal programs support commodity prices through nonrecourse loans for

feed grains, food grains, cotton, soybeans, and other commodities. The loan rate (the loan amount per bushel or pound) generally sets a minimum price for the commodity, although sometimes prices fall below the loan rates during harvest. The loans are a source of financing for farmers, and help them spread their sales throughout the marketing year. When market prices are consistently below the loan rate, participating farmers can forfeit the crop and keep the loan proceeds.

Since the mid-1960's, the Federal Government has attempted to set loan rates near or below market-clearing prices. Under the 1981 farm bill (1982-85 crop years), world prices fell well below U.S. loan rates. As a result, grain and cotton stocks accumulated rapidly in the U.S. as exports nosedived.

This set the stage for loan rate reductions in the 1985 FSA. The lower loan rates helped make U.S. crops more competitive in world markets. The 1989 loan rates continue the downward march of price support.

To support producer incomes, target prices have been set much higher than loan rates for program crops. Deficiency payments support incomes of grain and cotton producers when the national

Program and Related Variables for Major Crops

Crop	Unit	1985/86	1986/87	1987/88	1988/89	1989/90
<b>Wheat</b>						
Beginning stocks	Mil. bu.	1,425	1,905	1,821	1,261	534
ARP	Percent	20	22.5	27.5	27.5	10
PLD 1/	Percent	10.0 2/	2.5 2/	0	0	0
Loan rate	Dol./bu.	3.30	2.40	2.28	2.21	2.06
Target price	Dol./bu.	4.38	4.38	4.38	4.23	4.10
Market price	Dol./bu.	3.08	2.42	2.57	3.65 - 3.80	N/A
<b>Corn</b>						
Beginning stocks	Mil. bu.	1,648	4,040	4,882	4,259	1,660
ARP	Percent	10	17.5	20	20	10
PLD 1/	Percent	0	2.5 2/	15.0 3/	10.0 3/	0
Loan rate	Dol./bu.	2.55	1.92	1.82	1.77	1.65
Target price	Dol./bu.	3.03	3.03	3.03	2.93	2.84
Market price	Dol./bu.	2.23	1.50	1.94	2.40 - 2.70	N/A
<b>Soybeans</b>						
Beginning stocks	Mil. bu.	316	536	436	302	140
Loan rate	Dol./bu.	5.02	4.77	4.77	4.77	N/A
Market price	Dol./bu.	5.05	4.78	5.88	7.00 - 8.25	N/A
<b>Upland cotton</b>						
Beginning stocks	Mil. bales	4.0	9.3	4.9	5.7	9.2
ARP	Percent	20	25.0	25.0	12.5	25.0
PLD 1/	Percent	10.0 2/	0	0	0	0
Loan rate	Cents/lb.	57.3	55.0	52.25	51.8	50.0
Loan repayment	Cents/lb.	57.3	44.0 4/	5/	5/	5/
Target price	Cents/lb.	81.0	81.0	79.4	75.9	73.4
Market price	Cents/lb.	56.8	51.5	63.7	54.8 6/	N/A

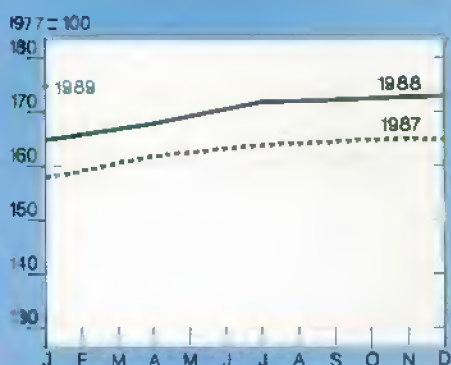
1/ Paid land diversion. 2/ Required of ARP participants. 3/ Optional with ARP participants. 4/ Repayment rate for entire season under marketing loan plan A. 5/ Smaller of loan rate or adjusted world price under marketing loan plan B, determined weekly. 6/ Average price to January 1, 1989.

N/A = Not available.

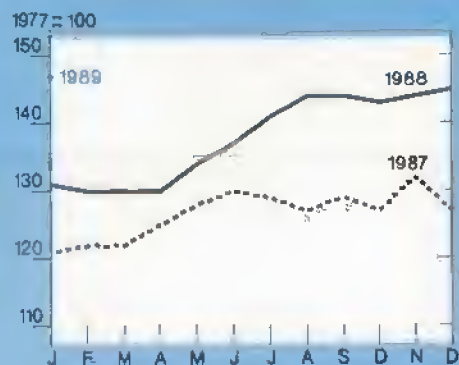


# Prime Indicators of the U.S. Agricultural Economy

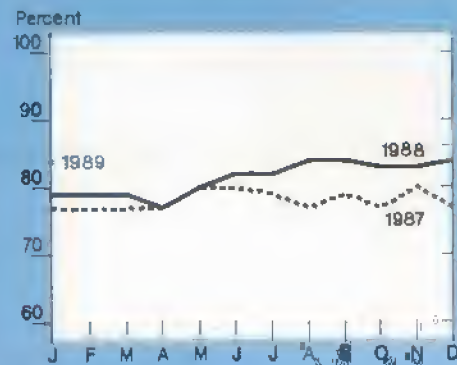
Index of prices paid by farmers<sup>1</sup>



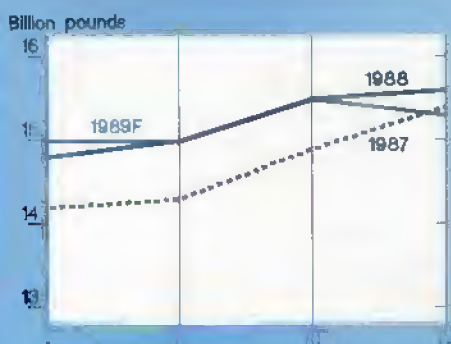
Index of prices received by farmers<sup>2</sup>



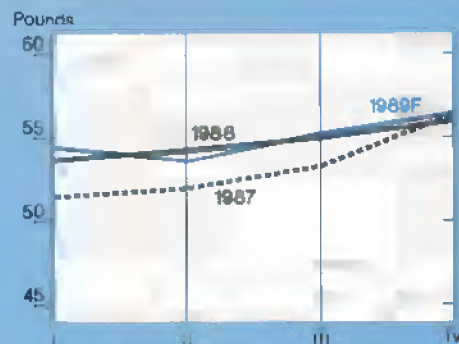
Ratio of prices received to prices paid



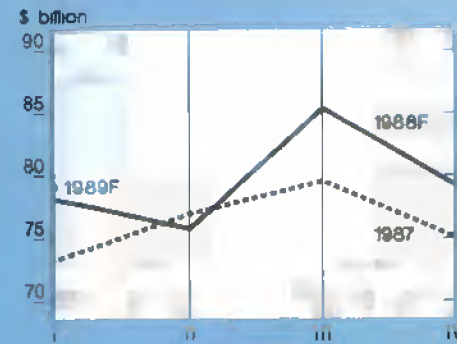
Red meat & poultry<sup>3</sup> production



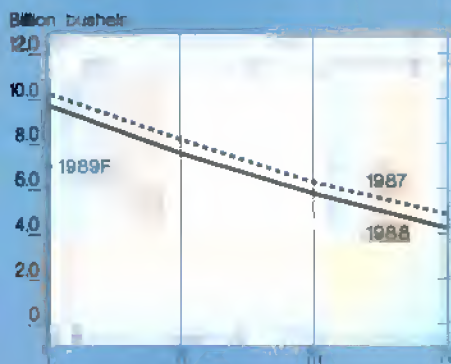
Red meat & poultry consumption, per capita<sup>3,4</sup>



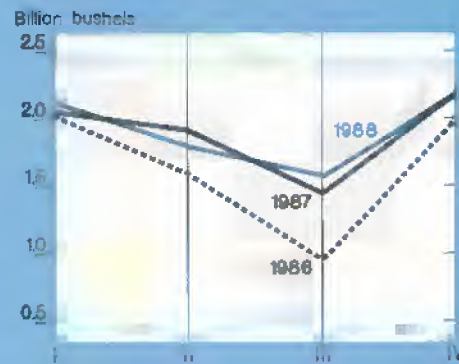
Cash receipts from livestock & products<sup>5</sup>



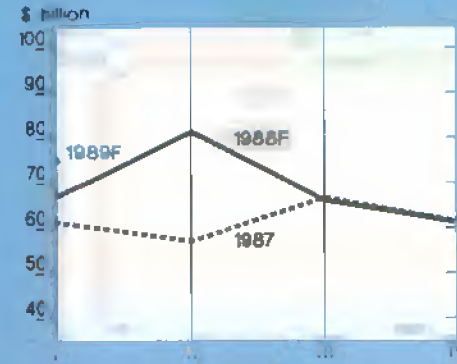
Corn beginning stocks<sup>6</sup>



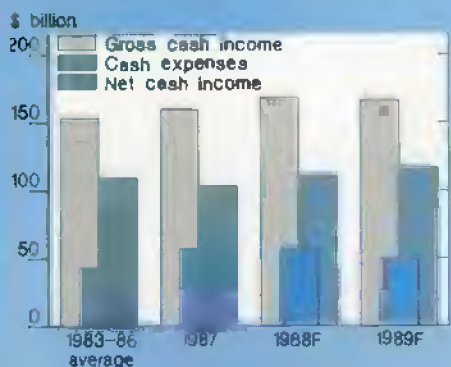
Corn disappearance<sup>6</sup>



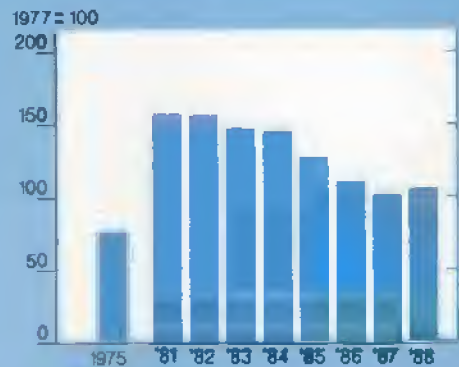
Cash receipts from crops<sup>5</sup>



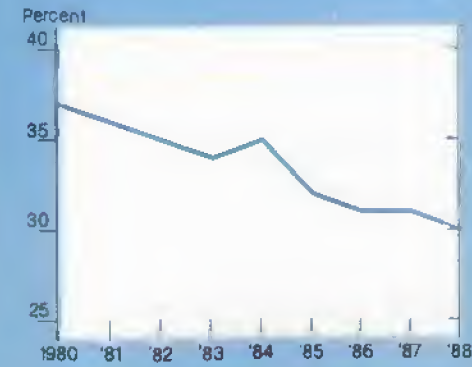
Farm net cash income



Farm real estate values



Farm value/retail food costs



<sup>1</sup>For commodities and services, interest taxes, and wages. Beginning in 1986, data are only available quarterly. <sup>2</sup>For all farm products.

<sup>3</sup>Calendar quarters. Future quarters are forecasts for livestock, corn, and cash receipts. <sup>4</sup>Retail weight. <sup>5</sup>Seasonally adjusted annual rate.

<sup>6</sup>I = Dec.-Feb.; II = Mar.-May; III = June-Aug.; IV = Sept.-Nov. F = forecast.

average market price for a commodity is less than its target price. The deficiency payment per bushel is the difference between the target price and the higher of the national average market price or the loan rate. Maximum deficiency payment rates have risen sharply under the FSA because of the reduced loan rates.

Higher target prices encourage production and can lead to potentially costly surpluses. To qualify for loans and deficiency payments, grain and cotton farmers may be required to limit planted acreage of those crops to a specified percentage of the farm's established acreage base for the particular crop. Acreage reduction programs (ARP's) have been implemented each year since 1982. These programs are intended to reduce production of program crops and lower Government costs.

The ARP's attempt to balance the goals of farmer support, control of Government costs, and appropriate stock levels. Target price incentives, favorable weather, and foreign competition had produced large grain stocks going into the 1987 and 1988 marketing years. The high ARP's of the 1987 and 1988 programs reflected the Government's attempt to control these growing stocks.

Decisions on ARP's were more difficult for 1989, because drought threatened to erode the stock cushion before program decisions were final. But the possibility loomed that too much planted acreage could result without ARP's, causing new stock accumulation and higher Government costs.

The FSA requires an ARP of at least 20 percent for wheat if prospective beginning stocks (stocks on June 1) for the crop year exceed 1 billion bushels. Since wheat stocks were expected to be below that level when the 1989/90 program was announced, an ARP was not legally required for the 1989 wheat crop. When beginning stocks are expected to be below 1 billion bushels, USDA may set the ARP between zero and 20 percent.

When the 10-percent ARP for wheat was announced last May, down from 1988's 27.5 percent, stocks were expected to be around 800 million bushels. By July, the drought reduced expected stocks to less than 700 million bushels. Now 530 million looks more likely.

U.S. Shares of World Grain Exports Up, Soybeans Down

	wheat 1/	Coarse grains 1/	Soy- beans 1/	Cotton
	Percent			
1985/86	29	44	77	10
1986/87	31	56	72	26
1987/88	41	64	73	28
1988/89	43	62	62	21

1/ Excludes intra-EC trade.

USDA had until the end of July to change the ARP, but maintained it at 10 percent. This action took into account conflicts between encouraging more production (a smaller ARP) and limiting budget outlays (a larger ARP).

The FSA requires an ARP of at least 12.5 percent for feed grains if expected beginning stocks of corn exceed 2 billion bushels. When the 1989 program was announced, corn stocks on September 1, 1989, were expected to be below 2 billion bushels, and an ARP for corn participants was not legally required. So the ARP for corn could have been set anywhere between zero and 12.5 percent.

Corn stocks were forecast at 1.6 billion bushels when the ARP for feed grains was announced last fall. As with wheat, the reduction in the ARP for corn, from 20 percent in 1988 to 10 percent in 1989, is aimed at boosting production following a drought year.

In 1988, feed grain program participants could also enroll in a 10-percent paid land diversion (PLD). The 1989 program does not offer a PLD option. The additional acreage coming into production for wheat and feed grains provides a cushion against poor 1989 yields.

The situation for upland cotton changed in a different way. When the 12.5-percent ARP for the 1988 crop was announced in the fall of 1987, beginning cotton stocks for 1988/89 were forecast at 3.8 million bales, slightly less than the 4-million-bale target in the FSA.

However, beginning stocks rose substantially when the 1987 crop turned out to be 10 percent greater than expected. Cotton demand during 1988/89, particularly foreign demand, has not met expectations, and the 1988 cotton crop was the

largest since 1981. In the face of sharply higher stocks, USDA selected the maximum ARP of 25 percent for the 1989 cotton crop.

While ARP's are designed to reduce production of program crops, the high target prices for grains have had an unwanted dampening effect on the supply of soybeans, for which there is no target price.

Farmers who plant soybeans rather than program crops on program base acres forego deficiency payments as well as future program crop base acreage, which depends on the average acreage planted or considered planted (such as acreage base idled under an ARP) to a program crop over 5 years. So, even though market prices for soybeans are high relative to corn, farmers are reluctant to plant soybeans. To make matters worse, the drought left U.S. soybean supplies very low.

The Disaster Assistance Act of 1988 encourages additional soybean production by allowing farmers to plant a limited amount of soybeans on base acreage without any loss of base. On February 10, USDA announced that producers will be allowed to plant 80 percent (2.8 million acres) of the soybeans they requested to plant under this special program. Soybean market prices will largely determine how much of the 2.8 million acres will go into soybeans.

Target prices for corn and cotton still generally favor continued production of these crops. This situation injects two issues into the next farm bill debate: base flexibility and decoupling of program payments from planting incentives.

Crop-specific base acreage limits the acreage that can be planted to program crops and still be eligible for deficiency payments. Relaxing the limits while maintaining high target prices would induce even larger supplies of program crops. If that happened, payment mechanisms would have to be changed to alter the relative incentives between program and nonprogram crops.

### *Most Export Commodities Should Hold Their Trade Shares*

Because U.S. stocks of most program crops were adequate going into the drought, and because other weather



problems have surfaced outside the U.S., exports are not likely to decline substantially. If 1989 production is normal, last year's drought should not substantially disrupt the U.S. trade position, although lower stocks likely will keep prices stronger than they would have been.

Lower prices for wheat and corn due to reduced loan rates in 1986/87 and 1987/88, and trade-expanding programs associated with the FSA, raised U.S. trade shares over the past few years. The Export Enhancement Program (EEP) helped boost exports of commodities such as wheat and barley. During the past two seasons, around two-thirds of wheat exports and more than 90 percent of barley exports were sold with EEP subsidies that cut their prices well below U.S. market prices.

The expected decline in the U.S. share of world trade in soybeans reflects the shortage of exportable supplies in the U.S. and more competition from Brazil and Argentina. Cotton exports have fallen in 1988/89 because U.S. prices have not been competitive, even with large stocks and a marketing loan program. [Sam Evans and Lorna Aldrich (202) 786-1840]

## LIVESTOCK OVERVIEW

Per capita red meat and poultry consumption in 1989 may exceed last year's record. Increases in poultry will counter declines in beef and pork.

The outlook for 1989 and beyond has changed with the upward revision in the January 1, 1988, cattle inventory. The 1988 calf crop estimate is 672,000 head higher than the July 1 projection. Beef cows on January 1 were up 2 percent from a year earlier, and beef replacement heifers were up 5 percent.

The larger-than-expected January 1 cattle inventory indicated that cow-calf producers have begun retaining heifers for herd expansion, apparently ending the liquidation phase of the cattle cycle that began in 1982. The accompanying smaller-than-expected dip in meat production could slow the increase in livestock prices.

Hog producers will cut production in response to negative net returns in late 1988. But hog slaughter and pork

production will not decline until fourth-quarter 1989, because farrowings remained high through last November.

Turkey and broiler production are projected to rise about 4 and 5 percent, respectively, in 1989. Increases in poultry will more than offset red meat declines, so total meat consumption probably will be up slightly. Retail prices for all meats also may be up a little.

Egg prices will be higher and production lower in 1989. Egg producers have reduced layer flocks following an extended period of negative net returns.

Retail dairy prices probably will climb 2-4 percent in 1989, reflecting strong farm and wholesale prices. Most of the rise will be due to tighter domestic and export markets. A temporary 50-cent boost in the support price during April-June also will contribute to the rise.

### Pork Producers Cut Back

The December *Hogs and Pigs* report showed that producers cut hog production plans during the fall of 1988, probably in response to poor returns. Returns dropped below breakeven in October and remained negative through the fourth quarter, ending more than 2 years of profitability. As of December 1, the U.S. breeding herd was down 2 percent from a year earlier, and down 3 percent from September 1.

Summer heat cut breedings, litter size, and baby pigs saved, reducing the summer and fall pig crops. Though the June-November pig crop was 2 percent above a year earlier, the number of sows farrowing was below previous intentions.

The sharp increase in feed costs in the summer--and the specter of poor returns--caused very little reduction in breeding and farrowing until the fall, when negative returns were realized. The number of sows and gilts bred during August-October was 2 percent larger than a year earlier, but 5 percent fewer breedings were scheduled for November-January.

Hog slaughter and pork production are not likely to drop significantly until fourth-quarter 1989, when production is

projected to fall 6 percent below a year earlier. First-quarter production is expected to be 3 percent above a year earlier.

Hog prices in 1989 could depart from typical seasonal patterns; spring lows, summer highs, and fall lows could be earlier. Also, seasonal price changes could be relatively flat. Barrow and gilt prices are expected to hold in the low 40's per cwt through March, rising to near \$50 by late spring. Prices in the mid- to high \$40's are likely through most of the summer, followed by a drop to the low \$40's in early fall.

Retail pork prices are expected to rise in 1989, especially in the fourth quarter. Farm-to-retail price spreads are likely to remain stable. The expected strength in retail prices stems partly from an anticipated rise in wholesale pork prices in the second half, and partly from higher beef prices.

### Cattle Cycle To Turn Up

Cattle producers are beginning to expand their breeding herds. The number of cattle and calves as of January 1 was only slightly below last year's 99.5 million head and was the lowest since 1961. The outlook has changed dramatically: the 1988 calf crop was up 672,000 head from the July 1, 1988, projection. Beef cows on January 1 were up 2 percent from a year earlier while beef replacement heifers rose 5 percent. Dairy cow numbers declined 1 percent, while dairy replacement heifers were up 2 percent.

The larger inventory provides a base to increase estimates for this year's beef production and for future herd expansion. Returns above cash costs in 1986-88 overrode the negative impact of drought-reduced forage availability in 1988, and encouraged producers to retain heifers for herd expansion. Returns are likely to remain positive in 1989 and 1990, but will not approach the \$120 per head of 1979, during the last expansion.

How fast the feeder cattle inventory expands in 1989-90 will depend on forage conditions and grain supplies. Much of the country remained dry in early February, so many cattle were pulled off wheat pasture. Hay stocks as of December 1, 1988, were 24 percent below a year earlier. Drought reduced last year's

## Specialization in the U.S. Livestock Industry

Many years ago meat and milk came primarily from the same cattle. But specialization and more efficient production separated meat and milk into two distinct industries. Now U.S. dairy and beef cattle come from different breeds and generally are raised on different farms. The major remaining link is that dairy stock ends up in the supply chain as veal calves, feeder calves, culled cows and bulls, or hamburger beef.

Beef cattle are raised in every State and are a major agricultural commodity. The kinds and sizes of cattle operations vary greatly, and include calves born and raised in 20-cow herds on Kentucky bluegrass pasture, 50-cow herds using crop residue on Iowa corn farms, and 1,000-cow herds on Montana rangeland. Cattle and sheep, unlike hogs, poultry, or humans, use plant cellulose as feed. Cattle use millions of acres of land that is too rocky, dry, wet, infertile, steep, or high for crop production.

Calves are born after a 9-month gestation period and are weaned at 5 or 6 months. Whether they are destined for slaughter or for the breeding herd, most are transferred after weaning to a growing or "stocker" enterprise where they gain a few hundred pounds in 4 or 5 months on range, wheat pasture, crop residue, or other forage. The growout phase may take place on the farm or ranch where the calf was born or on another farm hundreds of miles away. Forage availability, environment, labor, and other factors vary by location and season, so calves are drawn to the areas and enterprises best suited for grazing.

Following the growout phase, heifers (young females) may either join steers (castrated males) destined for feedlots as "feeder cattle," or be "retained" and added to the beef cow inventory. Until the decision is made to place an animal on feed or retain it for the breeding herd, transfer between the two tracks (slaughter or breeding herd) can be made with comparative ease in response to changing market conditions.

The relative rates of heifer retention and culling of old cows determine whether the cow herd increases or decreases. The greater the retention rate, the smaller the near-term slaughter and the larger the inventory determining long-term beef supplies.

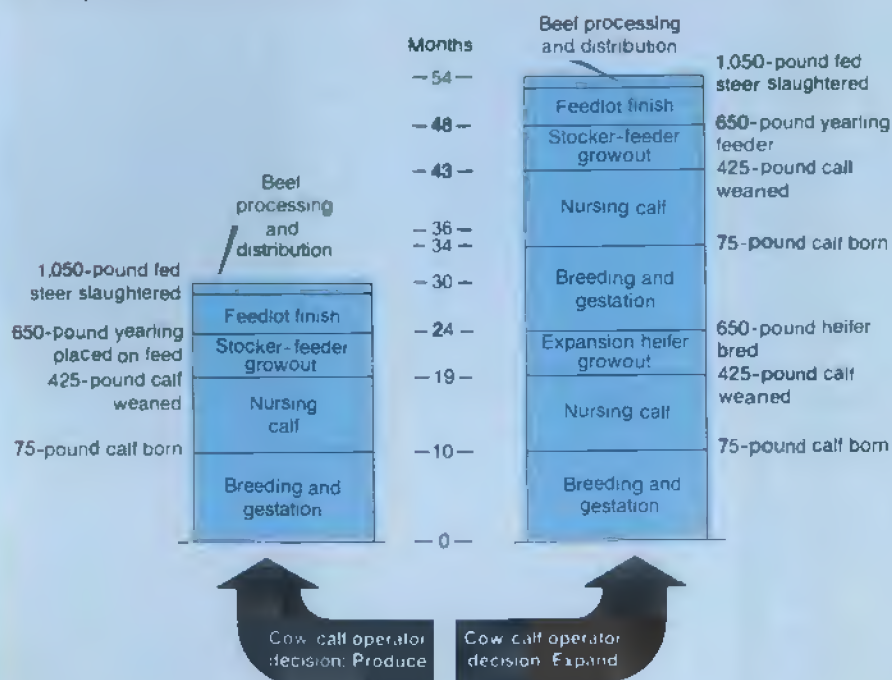
A few young cattle go directly from pasture to the packing plant. These, along with cull breeding stock, are called "non-fed" cattle because they have had little or no grain. Relatively more fed versus nonfed cattle means heavier weights at slaughter and larger meat supplies.

When high returns provide incentive for producers to expand, it is necessary to retain heifers and forego slaughter, thereby reducing beef supplies in the current year in order to increase cattle numbers (and beef supplies) in later years. Conversely, when expanded herds and large supplies push prices down, producers "liquidate."

Both young and old cattle can be sold and slaughtered. So short-term supplies surge while long-term capacity is cut. This biological lag is at the root of the historic pattern of increases and decreases in cattle numbers that is called the "cattle cycle." It explains why switching an animal from the slaughter track to the expansion track can reduce beef production from what it would have been 2-1/2 years after conception, but can increase the cattle inventory and result in increased slaughter 4-1/2 years after conception.

Feeder cattle are moved to feedlots, many of which are in the Plains States and some of which feed up to 100,000 head at a time. Here the 600- to 800-pound feeders are placed in pens and fed a carefully balanced diet composed primarily of a concentrate feed (often corn), protein supplement (perhaps soybean or cottonseed meal), and some roughage (from silage or hay). Slaughter cattle weighing 1,000-1,200 pounds emerge from the feedlot after about 5 months, are trucked to beef packing plants, and ultimately go to the supermarket or restaurant. [Ken Nelson (202) 786-1712]

Herd Expansion Takes 4 1/2 Years





hay crop to 126.7 million tons, 15 and 19 percent below the 1987 and 1986 harvests.

The January 13-State *Cattle on Feed* report points toward moderately reduced beef supplies in 1989, particularly this spring and summer. Cattle on feed were down 4 percent from a year ago; steers were down 6 percent, while heifers were unchanged.

Although beef replacement heifers on January 1 were 5 percent above a year earlier, a large proportion of the heifers likely are from the 1988 calf crop and will be bred for the first time in 1989 to calve in 1990.

Feeder cattle outside feedlots on January 1 were 2 percent below a year ago. Non-fed steer and heifer slaughter already has dropped as more cattle are being pulled into feedlots. Feedlot placements in fourth-quarter 1988 exceeded marketings, but were the lowest for this period since 1981.

However, yearling supplies as of January 1 were up 1 percent, and the larger calf crop expected in 1989 should further expand feeder cattle supplies. Larger feeder cattle supplies provide a base for expanded future fed cattle marketings while reducing current markets. As a result, beef production for the year may decline about 3 percent.

Large numbers of cattle forced off wheat pasture about offset the reduced feeder cattle imports from Mexico. If Mexico continues its high tax on feeder cattle exports, movement to the U.S. could remain low this winter and spring.

Cattle slaughter declined 2 percent in 1988, as increased fed cattle marketings were more than offset by reduced nonfed slaughter. However, beef production was about unchanged, as heavier slaughter weights offset the decline in slaughter numbers.

Increased fed cattle slaughter and continued heavier placement weights raised slaughter weights 11 pounds for steers and 9 pounds for heifers in 1988. Cow dressed weights rose about 9 pounds, as the proportion of dairy cows rose from 45 percent of the cow slaughter mix in 1987 to 48 percent in 1988. For the year, beef cow slaughter declined 7 percent

while dairy cow slaughter rose nearly 1 percent.

Retail prices for Choice beef in 1988 averaged \$2.55 a pound, up 5 percent from a year earlier. Prices for Choice fed steers at Omaha averaged \$69.54, up \$8. Prices for yearling feeder steers at Oklahoma City averaged \$84, also up \$8. Utility cow prices at Omaha averaged \$47.03, only \$2 higher; large supplies of competing processed meats held down gains.

### ***Broiler Production Up***

Broiler production is forecast to increase over 5 percent in 1989, following good net returns in 1988. Wholesale broiler prices probably will remain unchanged to slightly down, because increasing supplies will about offset declining red meat supplies.

Broiler production during first-quarter 1989 likely will increase 3 percent. The November hatch and December broiler chick placements were nearly 3 percent above a year earlier. The hatching-egg flock was 4 percent above a year earlier on December 1, indicating second-quarter production could increase 4 percent from the previous year. As feed costs moderate this year, larger production increases probably will come in the second half.

Net returns to producers were positive during the fourth quarter of 1988, averaging an estimated 7 cents per ready-to-cook pound. Net returns are expected to remain positive throughout 1989 if feed supplies are normal.

The broiler hatchery supply flock in July is expected to be about the same as a year earlier. The flock size is a rough indicator of broiler hen egg-laying capacity; a few broiler hens can be molted and returned to production if profit expectations improve. Or, if there is excess capacity, broiler eggs can be sent to processors.

There may have been excess capacity in 1988, because the supply flock was up as much as 14 percent while production was up only 7 percent. There were reports of broiler eggs being sent to egg breakers.

The 12-city wholesale composite broiler price is forecast to average 53-59 cents per pound in 1989, little changed from the 56 cents of 1988. Prices are expected

to remain strong through the year because of declining per capita red meat supplies. Fourth-quarter 1988 prices averaged 58 cents per pound. First-quarter 1989 prices, at 56-60 cents per pound, will be about unchanged, but up from 45 cents a year earlier.

Broiler exports during 1988, at a record 765 million pounds, were up nearly 2 percent from a year earlier. Exports are expected to be lower in 1989 as U.S. prices remain relatively high.

### ***Turkey Production Increases Slow***

Turkey production is forecast to rise nearly 4 percent in 1989 following lackluster annual returns the previous 2 years, even though producers reported intentions to increase 1989 production nearly 7 percent. Per capita consumption during 1989 is expected to rise slightly to around 16.9 pounds.

Production in first-quarter 1989 is forecast to advance 2 percent over a year earlier; cumulative placements for first-quarter slaughter have increased by a similar amount. Production during 1988 increased about 5 percent after a 19-percent rise in 1987.

Wholesale turkey prices are expected to climb in 1989 as competing red meat supplies decline and per capita turkey supplies increase slightly. Wholesale hen turkey prices in the East are projected to average 63-69 cents per pound, up from 61 cents in 1988. With beginning stocks about 11 percent lower than a year earlier, first-quarter prices likely will average 58-62 cents, substantially above the 49 cents of a year earlier.

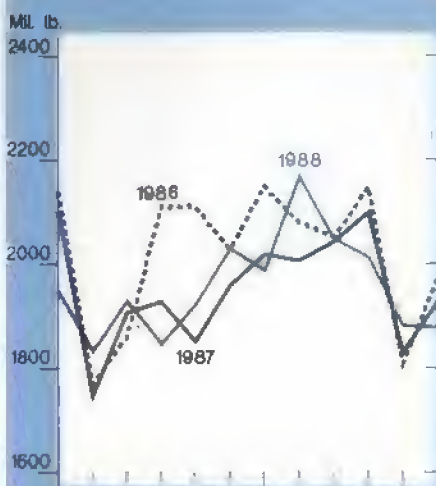
Turkey exports during 1988, at 51 million pounds, were 54 percent ahead of a year earlier. Exports are expected to drop this year, however, as U.S. prices are likely to be higher. Import tariffs and other barriers are uncertain in some major markets, such as West Germany, Egypt, and Mexico. However, Taiwan has increased its import quotas, relaxing its ban on imports of turkey parts imposed during the latter part of 1988.

### ***Egg Producers Reduce Flocks***

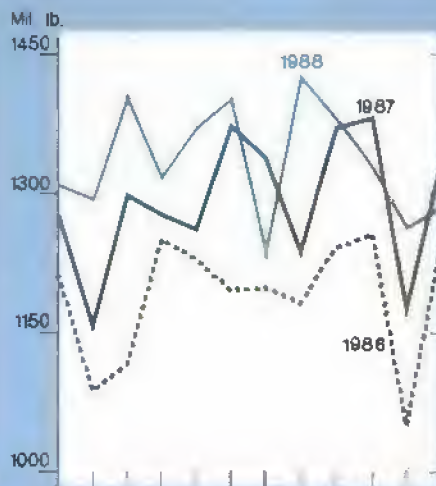
U.S. egg production (table and hatching) is expected to decline about 2 percent in

# Production of Livestock and Products

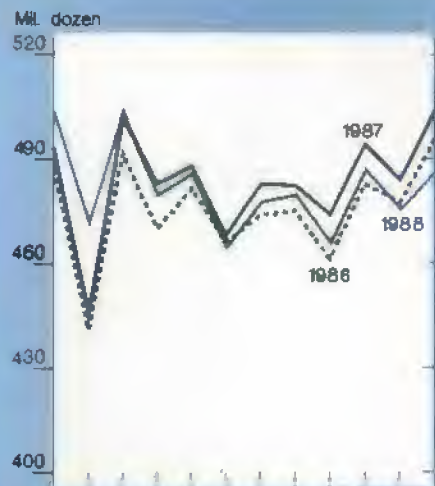
Commercial beef



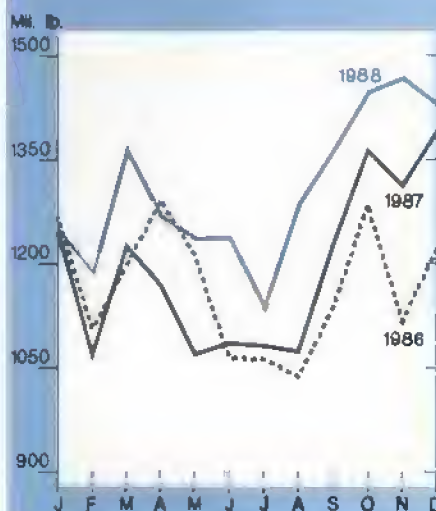
Broilers<sup>1</sup>



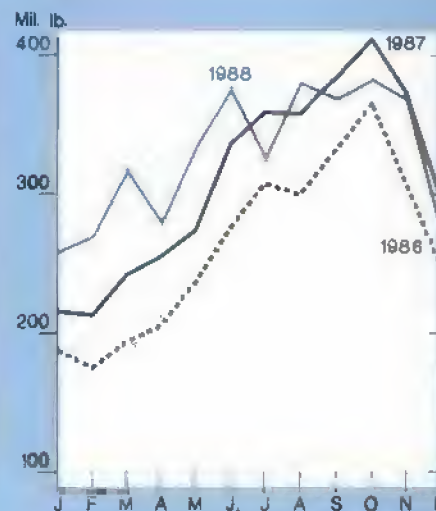
Eggs



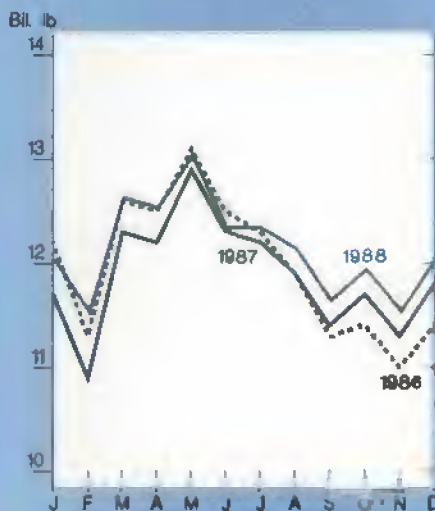
Commercial pork



Turkeys<sup>1</sup>



Milk



<sup>1</sup>Federally inspected production, ready-to-cook.

1989, following a nearly 1-percent drop in 1988. Per capita consumption is projected at 236 eggs, down from 244 in 1988 and 249 in 1987.

Table egg production is expected to fall nearly 3 percent in 1989. Poor returns over the past several quarters caused producers to substantially reduce the table-egg type laying flock. This could provide significant price strength, particularly during the fourth quarter when prices are often highest.

The table-egg laying flock (which is 86 percent of the total flock) was 5 percent smaller in December and 6 percent

smaller in January than a year ago. The flock is expected to continue decreasing through first-half 1989.

Wholesale prices for grade A large eggs in New York City averaged 62.1 cents per dozen in 1988. Prices were volatile over the last several months of the year, averaging nearly 73 cents in the third quarter and 67 cents in the fourth.

For 1989, prices are expected to strengthen to an average of 70 cents per dozen. First-quarter prices may average about 69 cents, while second-quarter prices could fall to 64 cents. Prices may strengthen to the low 70's in the third quarter and the upper 70's in the fourth.

Net returns to egg producers are estimated at minus 5 cents per dozen for 1988, the largest negative return since the data series began in 1972. The poor performance derived primarily from low egg prices in the first half and higher feed costs in the second half.

Net returns in 1989 may continue well below breakeven during the first half, but should turn positive in the second, as diminished supplies push prices up. Net returns are forecast at 1-5 cents per dozen in the third quarter. The fourth-quarter outlook is even brighter, as sharply lower feed prices and rising egg prices



may push net returns to the 10-15 cent range, a figure in line with the fourth quarters of 1985 and 1986.

Egg exports during 1988 were 142 million dozen, up 27 percent from a year earlier. Egg products made up 53 percent of the exports, table eggs 29 percent, and hatching eggs 18 percent. The value of egg exports also was up 33 percent to \$117 million. Exports are expected to decline in 1989, however, due to higher U.S. egg prices.

### ***Dairy Markets Strong in 1989***

A late-1988 surge in domestic commercial use of milk and dairy products is combining with vigorous export demand for nonfat dry milk to create strong dairy markets in early 1989. Early season declines in wholesale and farm prices were delayed as stock rebuilding and exports absorbed skim and whole milk-based products. Milk prices probably will fall gradually to near the support levels by spring, but climb later in the year.

The supply-demand situation probably will be tighter than in 1988. High feed costs should lessen milk output in the first half, but 1989 production is likely to be about the same as or slightly above the year before. Any increases in production should be absorbed by a 1- to 3-percent increase in commercial use.

Government purchases probably will decline to 5-7 billion pounds, milk equivalent, from 8.9 billion in 1988. Most of this year's purchases will be as butter.

Despite sharply higher feed costs, milk production during late 1988 continued to post 2-percent rises from a year earlier. Total 1988 production was 145.5 billion pounds, nearly 2 percent above 1987. Average cow numbers fell 1 percent to a record low, but milk per cow rose sharply.

The Minnesota-Wisconsin (M-W) price of manufacturing grade milk increased almost \$2 per cwt during June-December, its largest seasonal rise since 1975. Reflecting this strength, average milk prices moved well above a year earlier during the last quarter of 1988. For the year, farmers received an average \$12.21 per cwt, down 33 cents from 1987.

Farm milk prices will stay above 1988 during the first half, and probably will average 10-50 cents higher for all of 1989. Tighter domestic and export markets will account for most of the rise, but a temporary 50-cent boost in the support price during April-June also will contribute.

December retail dairy prices rose about 4 percent from a year earlier. Although increases in retail dairy prices are larger than in recent years, they remain smaller than those of all food. Retail dairy prices probably will climb 2-4 percent in 1989, slightly more than 1988's 2 percent.

Sales of cream-based products recovered in late 1988 and joined the increases posted earlier by whole-milk and skim-milk products. On a milk equivalent, milkfat basis, total commercial use grew 1 percent in 1988; sales of solids-not-fat grew more rapidly. In 1989, sales of both milkfat and nonfat solids are expected to be brisk.

Larger milk marketings during September-November led to small increases from a year earlier in milk for manufacturing. Butter, American cheese, and other cheese shared the increase. Nonfat dry milk production continued to drop, reflecting competition for skim milk from other uses.

December 1 commercial stocks of dairy products were only 4 billion pounds, milk equivalent, down 15 percent from a year earlier. Continuing a pattern set by midyear, butter holdings were adequate, but American cheese stocks were low. Manufacturers' stocks of nonfat dry milk also were low.

Government butter purchases in late 1988 were generally below a year earlier. For the year, purchases of dairy products totaled 8.9 billion pounds, milk equivalent, up from 6.7 billion in 1987. Cheese removals declined slightly, and nonfat dry milk purchases dropped.

International prices for butter have risen since mid-1988 following the earlier tightening of world markets for nonfat dry milk. Higher prices reflect the success of many countries in reducing surpluses and government stocks. Prices for nonfat dry milk probably will be strong throughout 1989.

For further information, contact: Ken Nelson, coordinator; Kevin Bost, hogs; Mark Weimar, Bob Bishop, and Larry Witucki, broilers, turkeys, and eggs; Ron Gustafson, cattle; and Jim Miller and Sara Short, dairy. All are at (202) 786-1285.

## **FIELD CROP OVERVIEW**

### ***Winter Wheat Area Expands; Weather Difficulties Persist***

Winter wheat area seeded for the 1989 crop is forecast at 54.5 million acres, up about 12 percent from a year earlier. Area was boosted by higher prices last fall, and by significantly lower acreage reduction program requirements.

Even after allowing for land diverted for the long-term Conservation Reserve Program, the percentage of producers' base land sown to winter wheat for 1989 harvest rose in most States. The increase was less than anticipated, however, as dry soils and other factors inhibited timely sowing in some areas.

Weather across much of the hard red winter wheat area remains a concern. A lack of snow across large portions of the Central and Southern Plains States and unusually warm temperatures have promoted growth for some of the crop, leaving plants vulnerable to winterkill and allowing soils to dry out. Additional rainfall or snow melt will be needed after the plants leave dormancy. Some white wheat in the Pacific Northwest may be suffering from limited soil moisture. In contrast, soft red winter wheat in areas east of the major hard red area appears to be in good condition.

Because of reduced supplies and forecasts of only a marginal reduction in use, USDA continues to forecast substantially higher wheat prices for 1988/89 than a year earlier. In February, prices were projected to be \$3.65-\$3.80 per bushel, more than \$1.00 above 1987/88.

World production is forecast at 501 million tons, marginally below 1987/88. World carryout wheat stocks for 1988/89 are projected at 111 million tons, the lowest since 1977/78 (see Commodity Spotlight "World Grain Stocks Down Sharply").

For the second consecutive year, world consumption will outstrip production. But import demand is expected to be down, reflecting the tighter supplies. Except in the EC, tight supplies have reduced major exporters' offerings this season, including those of the United States. Nonetheless, limited supplies elsewhere will allow the U.S. export share of world wheat trade (excluding intra-EC transfers) to rise to 43 percent, up from 41 percent last year.

### ***Corn Supply and Use Revised for 1988/89***

The U.S. corn production estimate for 1988/89 was revised in January to 4.9 billion bushels, but is still 30 percent below last year's crop. Harvested area is estimated at 58.2 million acres, up from 56.7 million estimated in December, but below the 59.2 million harvested last year.

Estimated corn yields were revised upward as well. Nonetheless, at 84.6 bushels per acre in 1988/89, the estimated yield is still remarkably low. The absolute deviation from long-term trend was the largest decline on record. The yield in 1987/88 was 119.4 bushels per acre.

Because the December 1 stocks report indicated a smaller feed and residual disappearance than earlier expected for September-November, the feed use estimate for the 1988/89 crop was reduced 200 million bushels. Ending stocks are estimated at under 1.7 billion bushels, up significantly from earlier estimates, but still more than 2.5 billion bushels below 1987/88.

The price of corn expected in 1989 was reduced 10 cents at each end of the forecast range in January but raised 10 cents at the low end in February to \$2.40-\$2.70 per bushel, still far above the \$1.94 a year earlier. U.S. prices have been tempered in recent months, reflecting less drought damage to supplies than earlier estimated.

The larger-than-anticipated U.S. corn supplies will offset expected declines in Argentine production. Argentine coarse grain prospects are deteriorating because of hot, dry weather; production forecasts have dropped to 9.7 million tons, the lowest since 1971/72. Most of the reduction is in the corn crop. World coarse

### **Generic Certificate Update**

USDA issued \$22.6 billion of generic certificates from April 1986 to January 31, 1988. Certificate exchanges for grains and oilseeds as of February 7, 1989, totaled \$21.2 billion. Exchanges for cotton as of February 7 and for cash as of December 31 brought total exchanges since April to \$22.3 billion, leaving near-term availability at \$310 million.

The Food Security Act of 1985 authorized USDA to issue in-kind payments in the form of negotiable certificates in lieu of cash payments due to program participants and merchants of agricultural products. Under that authorization, farmers have received generic certificates as payments for paid land diversion, the Conservation Reserve, market price deficiency payments, rice marketing loans, and disaster and emergency feed programs. In addition, grain merchants and commodity groups have been issued certificates through the Export Enhancement Program and the Targeted Export Assistance Program.

Issuances during September-November totaled \$1.2 billion, compared with \$3.1 billion a year earlier. Of the \$1.2 billion issued, over \$1 billion was in 1987-crop final deficiency payments, \$69 million under the Export Enhancement Program, \$37 million under the Targeted Export Assistance Program, and about \$23 million under the Conservation Reserve Program.

Certificate exchanges have fallen off significantly since June-August, when grain and oilseed exchanges were \$3.6 billion for the period. Exchanges during September-November fell to \$919 million,

with corn accounting for 71 percent and wheat 11 percent. As of February 7, 1989, certificate exchanges for December-February were down to \$628 million, with corn at 74 percent of the total and wheat falling off to 7 percent.

Cash exchanges during December were about \$100 million. Producers who are issued certificates must wait at least 5 months before they can exchange them for cash, implying that the bulk of December cash exchanges were advance deficiency and diversion payments made during the late spring and summer. For all of December-February, exchanges are expected to fall under the previous quarter.

A major reason for the drop in demand for generic certificates since last summer has been the lack of opportunities for "Quick PIK." Under "Quick PIK," participating producers use generic certificates to benefit from the loan rate without having to incur storage and interest costs over the life of the loan.

When market prices were at or below the loan rate, producers who placed their crop under loan with intentions of forfeiting the collateral to the Government at the end of 9 months instead paid off their loans immediately with certificates. "Quick PIK" opportunities diminished due to strong commodity demand and drought-reduced production, which raised cash prices for wheat and feed grains well above repayment levels.

Prices for generic certificates have been below face value since June-August, and traded at a discount of 1-2 percentage points during June-August and September-November. This reflects the reduced "Quick PIK" opportunities for wheat and feed grain producers. Certificate prices

grain production forecasts have risen slightly to 719 million tons.

Global coarse grain exports are forecast at 94.7 million tons, 14 percent over 1987/88. Rapid expansion of Soviet coarse grain purchases continues to boost world trade.

Much of the Soviet import demand is for corn, with imports projected at 17.3 million tons, double the previous year. With

expected corn exports of 51 million tons, the U.S. is likely to capture 78 percent of the world corn market, almost the same as last year.

The EC continues to encourage corn exports, which are expected to rise dramatically. China's corn exports are forecast to continue near last year's pace because of large stocks in the northeastern provinces. South Africa's corn exports are



Certificate Issuances and Exchanges, April 1986 to February 7, 1989 1/

- - - - Exchanges - - - -							
Period	Carryin	Issuances	Corn	Wheat	Other	Carryout	Premium
			\$ mil.				Percent
Apr.-Nov. 86	--	2,725.7	875.0	385.8	247.3	1,217.6	113.1
Dec.-Feb. 87	1,217.6	2,004.5 2/	1,035.2	180.6	82.2	1,923.9	105.4
Mar.-May 87	1,923.9	3,407.9	2,565.1	539.2	178.0	2,049.6	103.4
June-Aug. 87	2,049.6	1,240.6 3/	932.5	217.3	73.7	2,066.6	106.5
Sept.-Nov. 87	2,066.6	3,127.9 4/	1,682.2	419.6	210.3	2,882.5	105.5
Dec.-Feb. 88	2,882.5	4,838.6	2,460.3	953.2	290.0	4,017.6	103.7
Mar.-May 88	4,017.6	2,723.8	2,077.1	534.2	169.7	3,960.4	100.1
June-Aug. 88	3,960.4	1,315.5	2,981.9	269.3	305.5	2,125.2	99.4
Sept.-Nov. 88	1,719.2	1,195.2	655.0	100.3	163.3	1,995.7	98.5
Dec.-Feb. 89	1,995.7	66.0 5/	462.5	41.9	123.7	1,433.6	98.9

1/ Does not include certificate issuances and exchanges for cotton or certificate exchanges for cash. 2/ Through 1/31/87. 3/ Through 7/31/87. 4/ Through 10/31/87. 5/ Through 1/31/89.

Certificate Availability as of February 7, 1989

	\$ mil.
Issued to date	22,646
Redeemed	
Grains & oilseeds	21,212
Cash	398
Cotton	725
Total	22,335
Availability	310

Cumulative Generic Certificate Exchanges as of February 7, 1989

Commodity 1/	Unit	CCC inventory 2/	Producer loans	Total
Food grains				
Wheat				
Volume	(Mil. bu.)	781.5	628.3	1,409.6
Value	(Mil. \$)	2,045.2	1,596.4	3,641.6
Rice				
Volume	(Mil. cwt)	42.8	0.4	43.2
Value	(Mil. \$)	157.7	2.0	159.7
Feed grains				
Corn				
Volume	(Mil. bu.)	1,601.2	7,165.4	8,766.6
Value	(Mil. \$)	3,396.7	12,330.1	15,726.8
Grain sorghum				
Volume	(Mil. bu.)	238.3	468.3	706.6
Value	(Mil. \$)	477.4	683.4	1,160.8
Barley				
Volume	(Mil. bu.)	100.1	177.4	277.5
Value	(Mil. \$)	161.1	295.3	456.4
Cotton				
Volume	(Mil. bales)	.90	6.41	7.31
Rye, oats, soybeans				
Value	(Mil. \$)	32.9	34.0	66.9
Total value 3/	(Mil. \$)	6,270.9	14,941.2	21,212.1

1/ Other program commodities, for which few or no exchanges have been made, include honey, nonfat dry milk, butter, and cheese. 2/ CCC inventory as of February 3, 1989. 3/ Does not include values for cotton exchanges.

Source: Agricultural Stabilization and Conservation Service, USDA

initatives. Given recent exchange patterns and expected EEP issuances, certificate availability likely fell to less than \$300

million by the end of February. [Kenneth Bailey and Joe Glauber (202) 786-1840]

strengthened somewhat in January, reflecting demand for corn stocks and a declining supply of certificates. Most of the increase was from Commodity Credit Corporation stocks; the Farmer-Owned Reserve also contributed.

**Outlook Remains Uncertain**

Bonuses paid through the Export Enhancement Program (EEP) will continue to be a major source of certificates in the near term. Issuances in the form of EEP bonuses averaged almost \$70 million a month during June-August, but dropped to \$20 million a month after September as outstanding EEP balances were filled. EEP issuances increased to \$40 million in January because of renewed EEP in-

projected to increase because of a larger crop, but weather in the next month will have a major impact on the final outcome.

Forecasts of Thai corn exports have dropped 25 percent in recent months, as domestic use has risen and production has proven somewhat less than anticipated. Nevertheless, the Thais are expected to more than triple last year's reduced shipments. Because of a smaller crop, Argentine corn exports are expected to be the lowest since 1975/76.

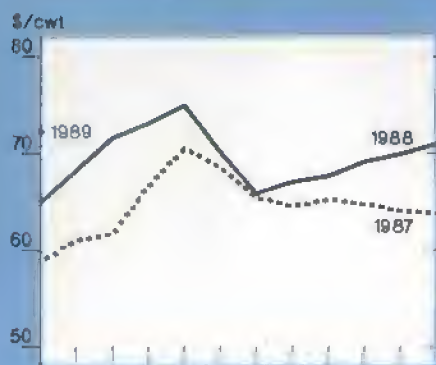
Adverse weather likely will reduce exportable sorghum supplies in Australia. If relative prices favor sorghum over corn, this may expand U.S. sorghum sales in the Far East. However, more barley is competing in world corn and sorghum markets this year. This is partly because Saudi Arabia reduced demand by eliminating its barley import subsidy. Higher barley prices are also encouraging exports by nontraditional suppliers.

**Future Soybean Area Expansion Uncertain**

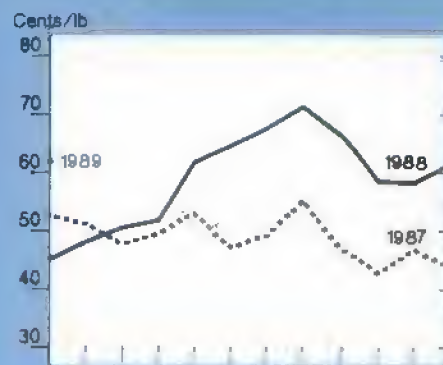
The U.S. soybean situation in 1989/90 will be affected by the Disaster Assistance Act, which authorized the Secretary of Agriculture to allow farmers to plant soybeans and sunflowers on permitted acres of program crops. Under the act, 3.5 million acres of soybeans and 353,000 acres of sunflowers were signed up for planting. But soybean growers

# Commodity Market Prices

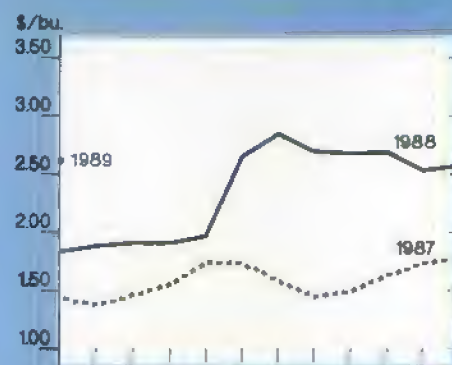
Choice steers, Omaha



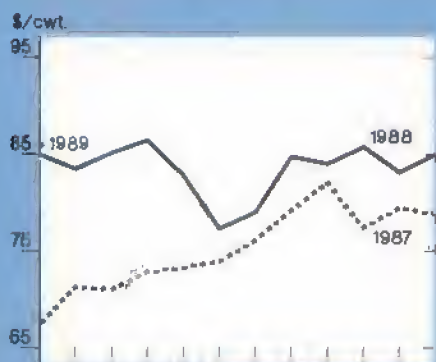
Broilers, 12-city average



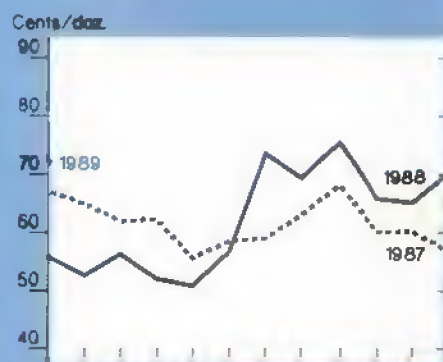
Corn, Chicago<sup>3</sup>



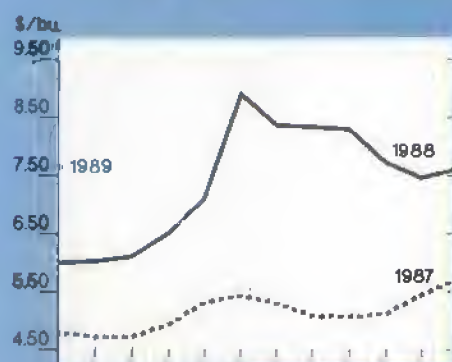
Feeder cattle, Kansas City<sup>1</sup>



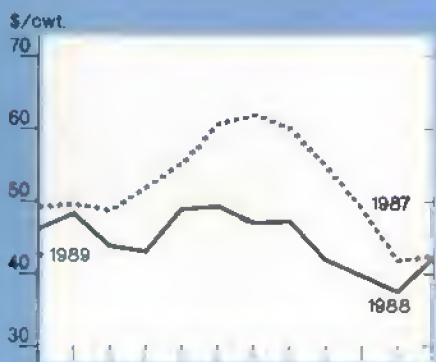
Eggs, New York<sup>2</sup>



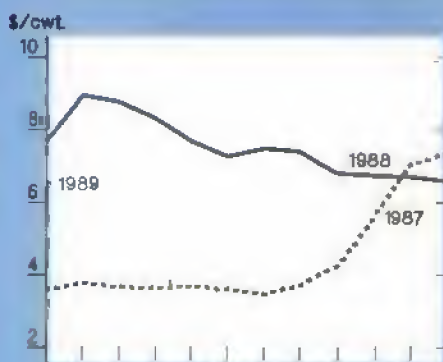
Soybeans, Chicago<sup>4</sup>



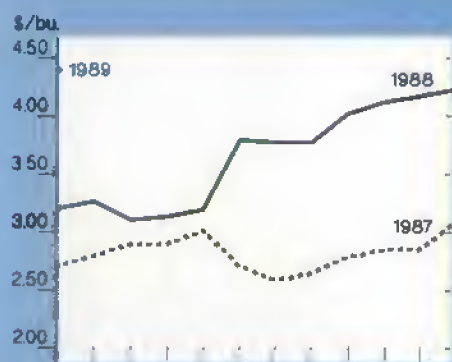
Barrows and gilts, 7 markets



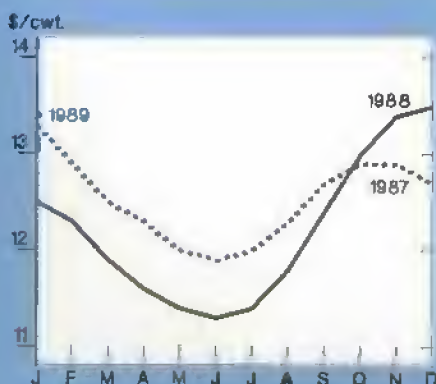
Rice (rough), SW Louisiana



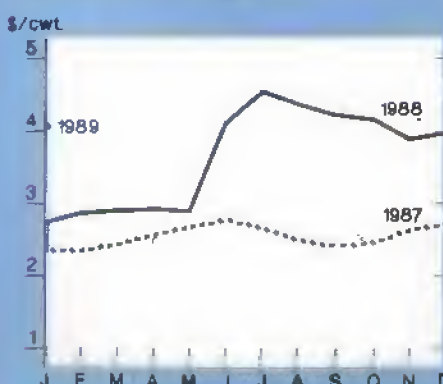
Wheat, Kansas City<sup>5</sup>



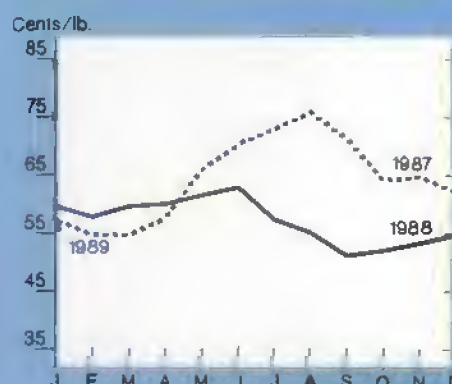
All milk



Sorghum, Kansas City



Cotton, average spot market



<sup>1</sup>500-700 lbs., medium no. 2

<sup>2</sup>Grade A large

<sup>3</sup>No. 1 yellow

<sup>4</sup>No. 2 yellow

<sup>5</sup>No. 1 HRW.



will be limited by USDA to 80 percent of their sign-up under a provision in the act requiring a reduction in area, because it is expected that extra acres would reduce the 1989/90 season average soybean price to less than \$5.49 a bushel. Sunflower area will not be scaled back.

The 1988/89 soybean crop is estimated at 1.5 billion bushels, with harvested acres at 57.4 million and yields at 26.8 bushels per acre. The drought cut U.S. soybean output 20 percent from a year earlier, to the lowest since 1976. Although yields were down as much as 13 bushels per acre in some Corn Belt States, they improved over 1987 in other areas, including the Delta and some Southeastern States.

Soybean stocks are expected to be down for the third straight year, to 140 million bushels by the end of the marketing year on August 31. This is less than half of last year's level. On December 1, 1988, stocks were reported at 1.4 billion bushels.

Soybean prices in 1988/89 have fallen steadily, reversing the usual pattern. Prices dropped from \$7.94 per bushel in September to \$7.48 in December. However, the 1988/89 season average price is forecast at \$7.00-\$8.25, up almost one-third from 1987/88.

Lower world soybean production for 1988/89--93 million tons, 10 percent below last year--has pushed world soybean prices well above a year earlier. Prices could rise further if drought damage in Argentina intensifies. But for now, South American supplies are expected to rise, helping offset lower U.S. production.

With supplies down and prices up, quantity demanded is down. Global soybean trade is expected to reach only 24.9 million tons in 1988/89, down 16 percent from a year earlier. The U.S. share is forecast at only 62 percent, down from 73 percent last year.

Strong demand for U.S. soybean meal exports, particularly in Latin America, and recent large soybean meal purchases by the Soviet Union from the U.S. and other countries, underlie forecasts of increased world soybean meal trade. World trade is currently forecast at 26 million tons, 3.4 percent above 1987/88.

U.S. soybean oil production in 1988/89 will be down 11 percent because of the drought-reduced crush. The average price for 1988/89 is not expected to be significantly above last year's 22.65 cents, however, because stocks remain burdensome. Weak domestic disappearance in October-December 1988 pressured prices. The 1988/89 price outlook is expected to keep soybean oil imports at 200 million pounds (90,700 metric tons), nearly the same as in 1987/88.

### ***U.S. Cotton Inventories Loom Large***

The estimate for 1988/89 U.S. cotton production is 15.4 million bales, up 4 percent from last season. U.S. yearend cotton inventories for 1988/89 are expected to climb to 9.2 million bales, up nearly 60 percent from a year earlier as production rises and use falls. With little growth in global ending inventories expected, the U.S. share of world cotton inventories is projected to grow from 18 percent last year to 28 percent.

However, with foreign stocks down by 2.6 million bales, world cotton stocks at the end of 1988/89 are forecast at minimal levels. Although prices might be expected to rise when world inventories are tight, both U.S. and foreign prices, though rising somewhat, remain relatively low because of the unusually high U.S. ending stocks.

World production is estimated up 4 percent this season to 83.7 million bales, although output was unexpectedly low in China, a key producing country. To maintain consumption, China's import demand increased, partially offsetting weaker demand among major importers. World consumption and exports for 1988/89 are projected at 82.6 and 24.3 million bales, respectively, near 1987/88 levels.

Because the rapidly rising U.S. supplies were priced above foreign supplies, foreign exporters met most of the demand this season. Foreign exports are forecast up 12 percent to 19.1 million bales, 2 million more than in 1987/88.

This large increase in foreign exports left the U.S. with only a 21-percent market share, compared with last year's more normal 28-percent share. But the U.S.

captured some of the unexpected import demand from China, and total U.S. cotton exports are forecast at 5.2 million bales. [James Cole (202) 786-1840 and Carolyn Whitton (202) 786-1826]

**For further information, contact:** Sara Schwartz, world food grains; Edward Allen, domestic wheat; Janet Livezey, domestic rice; Peter Riley, world feed grains; James Cole, domestic feed grains; Bob Cummings, world oilseeds; Roger Hoskin, domestic oilseeds; Carolyn Whitton, world cotton; Bob Skinner, domestic cotton; Jim Schaub, domestic peanuts. World information (202) 786-1824; domestic (202) 786-1840.

## **HIGH VALUE CROP OVERVIEW**

### ***Drought's Affect On Fruit and Vegetable Prices Short of Worst Fears***

Six to eight months ago, farmers searched the horizon for rain clouds to break the widespread drought, while consumers feared rising food prices. Last year's drought caused short supplies and immediate increases in prices of some fruits and vegetables, but had little or no effect on others.

Output fell for processing green peas, green beans, and sweet corn grown on nonirrigated land in the upper Midwest, and prices rose. Output and prices of fresh and processing tomatoes, lettuce, and many other fresh vegetables produced mostly on irrigated land or outside the worst drought areas were not much affected.

Consumers' worst price fears have not materialized, but the drought's lingering effects can be seen in higher prices for potatoes, dry beans, processing vegetables, tart cherries, and apples.

Retail potato prices in December, at 29.5 cents per pound, averaged almost 20 percent higher than a year earlier. The important fall crop, which supplies most potatoes used during the winter, fell 10 percent from 1987. Part of the lower output resulted from 2 percent fewer acres planted in 1988.

However, the biggest cause of the shortfall was lower yields. Production per acre fell 38 percent in North Dakota, 24 percent in Minnesota, 15 percent in

Michigan, and 7 percent in Wisconsin. These important potato-growing States are in the heart of last year's drought-stricken area.

Dry edible bean prices also jumped from a year ago. Grower prices averaged 30 cents a pound in December, compared with 13 cents a year earlier. As with potatoes, part of the increase was due to the drought and part due to fewer planted acres. Production fell 26 percent from 1987; output per acre was 8 percent lower.

Summer heat and dry weather likely contributed to higher onion prices this winter. Production of storage onions fell 3 percent from 1987, even though growers planted more acres. Yields were down 11 percent in New York and 12 percent in eastern Oregon and Idaho.

Wholesale prices for processed snap beans, peas, and corn are 7 to 30 percent higher this winter, primarily because of the drought. Green pea production declined 30 percent, while sweet corn and snap bean output fell 11 and 12 percent, respectively. Slightly higher prices for canned tomato products are likely the result of strong demand rather than lower output.

The abnormally dry weather last summer did not affect prices for fresh vegetables this winter. Retail prices for fresh tomatoes, lettuce, green beans, cucumbers, and celery are lower or about the same as a year ago. Most fresh vegetables are grown under irrigation in Florida or California. Many winter fresh tomatoes, peppers, green beans, cucumbers, squash, and eggplant are imported from Mexico.

Apple production in 1988 fell 17 percent from 1987—but only partly due to drought—and retail prices for fresh apples are higher this winter than a year ago. Some areas suffered freeze damage at blossom time. In other areas, heavy yields in 1987 stressed trees, reducing output in 1988. Production in Washington, the leading apple State, fell 26 percent from 1987.

U.S. tart cherry production dropped 34 percent from 1987 due to drought in Michigan and Wisconsin. Wholesale prices for frozen tart cherries are 40 to 50 percent higher this winter than last.

Hot, dry weather last year reduced free-stone peach yields in South Carolina, Colorado, New Jersey, and Pennsylvania. However, peaches were spared severe damage during the spring bloom, and production rose from 1987 despite the drought. Winter supplies of fresh soft fruits, such as peaches, grapes, apricots, plums, and nectarines, are imported from Southern Hemisphere countries, mostly Chile.

Oranges, grapefruit, and lemons are grown in Florida, California, and Texas, where production was not hurt by the drought. Higher retail prices for fresh oranges early in the winter were due to lower shipments of California navels and to strong demand for processing oranges. Prices fell during January when marketings of California navel oranges rose. Potential fruit damage from a freeze in early February may strengthen prices for the rest of the season.

The arid summer lowered sugarbeet output in the upper Midwest and reduced total domestic sugar production. However, the cut had little lasting effect on prices. U.S. sugar prices are largely determined by the support level for raw sugar established by the Federal sugar program, and by imports. U.S. cane sugar production is outside the major drought area.

Last year's drought had little effect on the U.S. tobacco crop. Production of flue-cured tobacco rose 18 percent in 1988 and burley output 10 percent. Tobacco yields exceeded a year earlier despite early season dry weather in the burley-growing areas. Grower prices were higher than in 1987 because of tighter supplies and a better quality crop. Prices for cigarettes and other tobacco products rose due to higher wholesale prices and higher cigarette taxes in some States and cities. [Glenn Zepp (202) 786-1883]

For further information, contact: Ben Huang, fruit; Shannon Hamm, vegetables; Peter Buzzanell, sweeteners; Verner Grise, tobacco. All are at (202) 786-1886.



## Commodity Spotlights

### Livestock and Meat Production More Concentrated

Livestock production and processing have become more concentrated. While there are still thousands of small livestock producers, their number has declined substantially in recent decades.

In 1987, the four largest slaughter firms accounted for 67 percent of steer and heifer slaughter, up from 35 percent in 1979. The share of boxed beef production by the four biggest firms rose from 51 to 80 percent. Meantime, the four-firm market share for hog slaughter increased from 34 to 37 percent; the share for sheep and lamb slaughter increased from 64 to 75 percent. The latest available data are for 1987.

Slaughter firms have consolidated both within and across species. Concentration in the industry may now be returning to conditions of the late teens and early 1920's, when USDA's Packers and Stockyards Administration was established.

Among producers, cattle feedlots show a high degree of concentration. Of 42,081 feedlots in the 13 major feeding States, which account for 90 percent of all fed marketings in the U.S., the 200 largest accounted for nearly one-half of 1987 marketings.



## Why Consolidate?

Firms merge and acquire other firms to improve efficiency in management and production, and perhaps to gain market power. Those practicing vertical integration acquire a firm or two for at least two stages of the production process, from raw materials through marketing of the final product. For example, Cargill and ConAgra, both major processors, have interests in grain marketing, livestock and poultry production, and meat processing. Some firms expand horizontally by acquiring other firms in different industries. The diversification cuts risk if one industry goes into a decline.

## Consumers and Small Producers Worried

Fewer packers mean fewer potential livestock buyers in local markets. Shifts from organized public markets toward direct sales to packers have cut market contacts for many small producers. Larger packers also have acquired some country buying points formerly owned by cooperatives or small marketing firms. In a recent survey, producers said they had fewer bidders for their livestock in 1988 than in 1982.

The worries of consumers, small processors, and small producers focus on the increasing market power of large firms. They fear the big firms are:

- cutting the prices received by small farmers;
- boosting consumer meat prices;
- discriminating against independent suppliers, small customers, and workers;
- engaging in predatory pricing to force small competitors out of business; and
- lessening the availability of reliable market news.

## Consolidation Can Be Beneficial

Concentration could be beneficial if such concerns are dealt with. Livestock production and processing show

economies of scale, where increasing plant size lowers the per-unit cost of production. Large firms can benefit from such economies and at the same time invest in product and market development. Such firms can pass on savings to farmers and consumers--savings that would not be possible in a less concentrated livestock and meat industry.

Consolidations can generate production cost savings: the question is who benefits. When a few firms dominate, the cost savings could stay mostly with the firms. Where there instead is competition, the savings ultimately will show up as lower consumer prices. One way to keep the benefits of bigness and foster competition is to open up world livestock and meat markets to more international competition.

Barring international liberalization, the Government could break up the big firms in an attempt to return to a setting with many more small firms. But then the cost savings of the consolidations might disappear. Regulation can be used to preserve savings by allowing consolidations and at the same time seeing that the benefits are shared. [Ken Nelson (202) 786-1712]

## World Grain Stocks Down Sharply

Last summer's North American drought abruptly changed the world grain situation. For most of this decade, excess stocks, overproduction, and low prices were major issues. Now, some exporters and consumers are worried about tight supplies and rising prices.

The U.S., which holds the bulk of exportable grain stocks, had large supplies at the beginning of 1988/89. These cushioned the sharpest drop in world stocks in many years. Reduced grain stocks, especially wheat, will provide only limited support if normal production in key countries declines again. But larger acreage and more normal yields, particularly in the U.S., are likely to boost output and halt the drop in stocks in 1989/90.

## What's Happening to Stocks?

World grain stocks at the end of 1988/89 are expected to fall 30 percent to 279 mil-

lion tons, the lowest since 1977/78. Ending stocks this year will be less than 17 percent of annual consumption, the lowest percentage since 1974/75.

Most of the stock decline is in the U.S., which holds the largest share of the world's grain stocks--an average 34 percent between 1977 and 1987. Two years ago the U.S. held a record 204 million tons, 45 percent of the world total. U.S. holdings at the end of this year will be only 74 million tons, 27 percent of the total. Foreign stocks also are down, but their drop has been much smaller.

For wheat, the world stocks-to-use ratio at the end of this year is expected to approach the record low of 1972/73. U.S. stocks will be only 21 percent of use, compared with an average of 58 percent during the past 10 years. The ratio for foreign exporters will be the lowest in 30 years, mainly because of record-low Canadian stocks. This is why wheat has shown the largest price surge of the major grains.

Rice stocks also are low in relation to use, but the situation is improving this year. Excluding China, foreign rice stocks will be higher. Although China holds half the world's rice stocks, changes there generally have little impact on the world market.

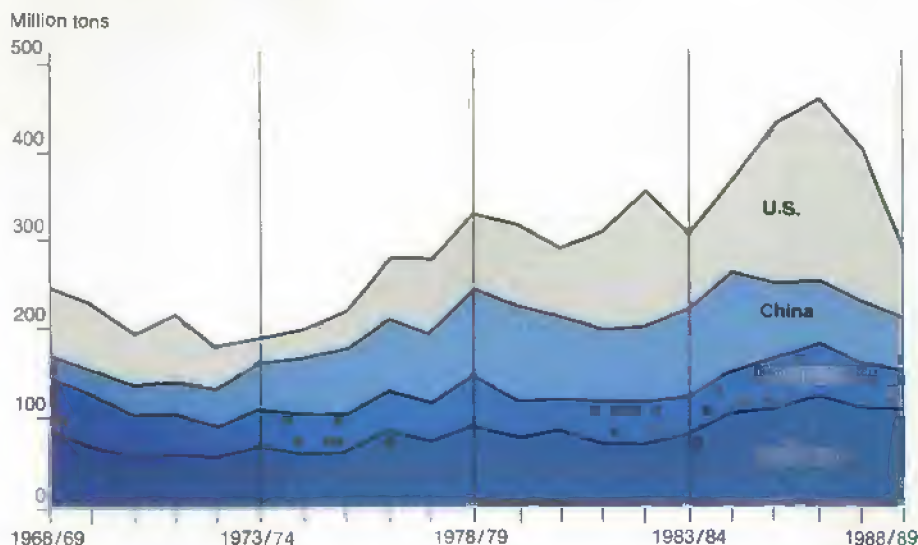
Coarse grain stocks, although also down, are relatively abundant. Both U.S. and foreign stocks-to-use ratios are well above historical lows.

## The Stock Turnaround Is Mainly In North America

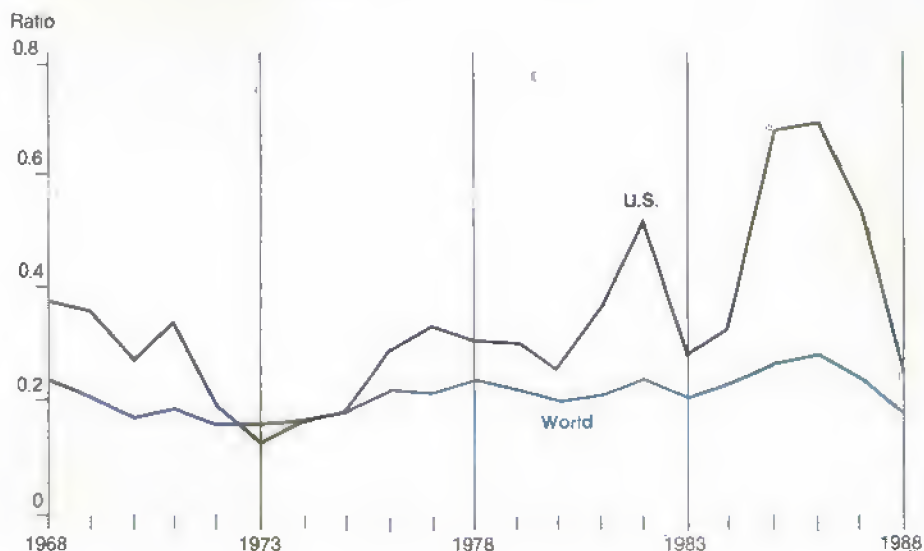
Part of the drop in world stocks over the last 2 years was intentional. Production consistently exceeded consumption through most of the 1980's. Two years ago, world and U.S. stocks reached a record, both in total and in relation to use. A major concern at that time was to balance supply and use by stimulating consumption and discouraging production.

To accomplish this, the U.S. took large amounts of cropland out of production. Participants in the U.S. wheat program were required to idle 27.5 percent of their base acreage for both the 1987 and

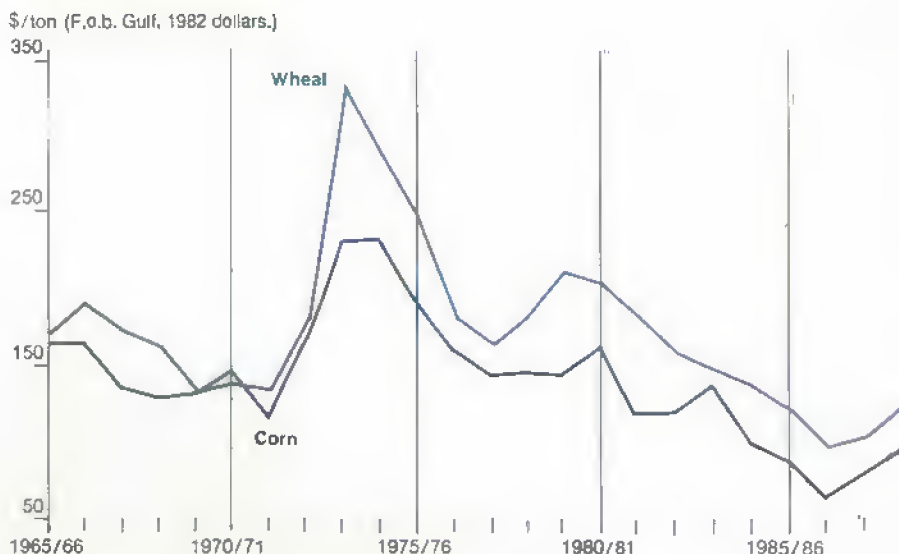
## World Grain Stocks Plunge



## World Stocks-to-Use Ratio Drops: U.S. Is Main Cause.



## U.S. Grain Export Prices Rise



1988/89 based on forecasts and preliminary estimates.

1988 crops. Acreage reduction requirements for coarse grains were also increased, and an optional paid land diversion was offered. These policies, together with lower prices and the Conservation Reserve Program, were the major reasons for the 14-percent drop in area planted in wheat and coarse grains between 1986 and 1988.

At the same time, low world prices discouraged production in other exporting countries, particularly Argentina, Australia, and Canada. So competitor production also leveled off, and foreign stocks, which were near a record at the end of 1986/87, began to drop during 1987/88.

After the cutback had begun, weather played an additional and dramatic role. In 1987, a poor monsoon in Asia sharply lowered world rice stocks. Record drought in North America in 1988 was responsible for a sharp drawdown of wheat and coarse grain stocks. There were no serious crop setbacks in most of the rest of the world; foreign grain consumption increased despite tighter exporter supplies.

## Has This Happened Before?

The experience of 1972/73 is in some ways similar to 1988/89. But in 1972/73, growth in U.S. exports, rather than a production shortfall, was the main reason for falling stocks and rising prices. Growing world consumption, a modest drop in world grain production, and a major shift in Soviet trade policy toward larger imports led to a sharp drop in world stocks.

Soviet developments were the largest factor: the USSR shifted from a net grain exporter to the world's largest importer in just 2 years. World grain trade jumped nearly 25 percent in 1972/73, and world stocks dropped 17 percent. Foreign demand grew sharply the following year, and imports surged again, cutting the U.S. stocks-to-use ratio to a record low and driving real grain prices to their highest in the post-World War II period. For example, U.S. wheat export prices more than doubled in 1973/74.

The dramatic growth of consumption and depletion of world stocks created widespread pessimism about the world's



ability to feed itself. Projections of long-term chronic shortages and higher prices became common. But production then surged, stocks increased, and real grain prices resumed their long-term decline. Acreage idled under U.S. programs came back into production, world yields continued to increase, and higher prices stimulated production by competing exporters. Attention then returned to excess capacity.

### *What Comes Next?*

Tightening supplies and higher prices this year are raising concerns about the adequacy of world food supplies next year. These concerns are interacting with a variety of emerging longer-run concerns about the possibility of slowing growth in world food production and the impact of global warming.

It is too early to say a great deal about prospects for 1989/90. But the following should be kept in mind:

- The best estimate of world grain yields for 1989/90 is for trend or near-trend yields, although based on weather to date, North American winter wheat yield potential may be reduced.
- There is substantial excess capacity that will be brought back into production this year. In the U.S., acreage reduction requirements for both wheat and coarse grains have been cut to 10 percent, and grain plantings will be up. Overseas, acreage probably will rise in response to higher world market prices.
- Production is likely to rise substantially. While the increase may stop the drawdown of stocks, stock rebuilding probably will be small because consumption will be close to production. Stock rebuilding will probably stretch over several years. Even with trend yields, the world supply-demand situation for grains will keep prices up relative to those of the mid-1980's.
- If the world experiences short crops this year, particularly for wheat,

there will be only limited reserves. A significant shortfall would mean sharply higher prices and reduced world consumption.

- Finally, the longer run concerns of some observers about slowing growth in food production are not likely to be important for 1989/90. As recently as 2 years ago, the world situation was one of excess capacity. The underlying long-run tendency is still for production to exceed consumption unless real prices fall.  
[Frederic Surls (202) 786-1824]

## Upcoming Economic Reports

Summary Released	Title
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### March

- |    |                            |
|----|----------------------------|
| 2  | Fruit                      |
| 7  | Vegetables & Specialties   |
| 8  | Sugar & Sweeteners         |
| 9  | World Ag. Supply & Demand  |
| 17 | Agricultural Outlook       |
| 20 | World Agriculture          |
| 4  | Livestock & Poultry Update |
|    | Foreign Ag. Trade Update   |



## World Agriculture and Trade

### GATT NEGOTIATIONS AND TRADE IN TROPICAL PRODUCTS

The midterm review of the Uruguay Round (1986-1990) of the General Agreement on Tariffs and Trade (GATT) was held in Montreal during the first week of December. The purpose was to review progress made during the first 2 years of the Round and to determine the agenda for the remaining 2 years (see *Agricultural Outlook*, December 1988).

However, as negotiators failed to resolve fundamental differences in four areas--agriculture, textiles and clothing, temporary trade safeguards, and intellectual property rights--talks reached an impasse. To preserve the progress made in eleven other areas of negotiation, the trade ministers put everything on hold until the first week of April. Meanwhile, negotiators are trying to resolve differences in the four areas of conflict.

### *Tentative Accord On Tropical Products*

A tentative accord was reached on trade in tropical products. Countries participating in the tropical products negotiations agreed on a substantive package of tariff concessions. While most countries will not implement the concessions until after the April meeting, the agreement shows that multilateral reforms can be negotiated.

## Tropical Products in the GATT

Tropical products allow developing countries to actively participate in GATT-sponsored multinational trade negotiations. Tropical products emerged as a separate group from agricultural products so that developing countries could be accommodated without the fireworks that go with other agricultural trade issues. A separate group for tropical products fosters special treatment for many low-income and small developing countries.

GATT's first multilateral attempt to tackle trade reforms for tropical products was in the Kennedy Round (1964-67). Those negotiations provided few substantive reforms. Tropical products were again singled out in the Tokyo Round (1973-79), where greater emphasis on them provided the first major opportunity for developing countries to actively participate in GATT-sponsored multinational trade negotiations.

In both rounds, developing countries received tariff concessions from developed countries. However, the cuts were negligible for several high-revenue commodities, such as tobacco, oilseeds, vegetable oils, and selected fruits.

Today, many tropical products do not face extreme trade restrictions, but some significant trade barriers remain, especially for processed tropical products. Negotiations in the Uruguay Round (1986-90) are focusing on these barriers.

### *Product Definitions Complicate Negotiations*

Definitions of "tropical products" have hampered negotiations. Developing countries would like to see all products produced in tropical areas in both primary and processed forms included. Most developed countries resist this definition to protect their processing industries. Because agreement could not be reached on a definition of tropical products, the GATT Secretariat compiled and presented an "indicative" list which centers on seven commodity groups:

- tropical beverages (coffee, tea, cocoa);

- spices, essential oils, natural gums, plaiting products, cut flowers, and plants;
- certain oilseeds, vegetable oils, and groundnuts (including palm and coconut oils and oil cakes);
- tobacco and tobacco products, rice, manioc, and tropical roots;
- tropical fruits and nuts (including bananas, pineapples, mangoes, and pistachios);
- tropical wood and wood products (except pulp and paper), natural rubber and rubber products (including rubber tubes and tires but not rubber shoes); and
- jute and hard fibers, raw and processed (including yarn, fabric, twine, floor coverings, and sacks).

There is some overlap with products being negotiated in the agricultural group. For example, tobacco, rice, and sugar are produced in both tropical and temperate climates. Tobacco and rice are included in the tropical products "indicative" list, while sugar is not. But all three are included in GATT's agricultural group.

### *The Request-Offer Approach To Negotiations*

The request-offer approach was adopted in the Tokyo Round as an alternative to developing a set definition of tropical products. Using the request-offer approach, developing countries request concessions on specific products and are given, in turn, offers from other countries.

While the process has been useful for removing tariff barriers for many tropical products, it restricts developing countries to either accepting or rejecting the offers. So, tariffs can remain high for products for which no offers are made. Moreover, the approach does not facilitate negotiations on non-tariff barriers.

[Kate Buckley (202) 786-1289]

The concessions were arrived at using the request-offer approach traditionally used for GATT negotiations on tropical products. But the U.S. resisted this process for the Uruguay Round because the process allows countries to decide arbitrarily which concessions they are willing to make. The U.S. position on tropical products parallels the U.S. position on all agricultural products--total elimination of all trade-distorting measures.

The U.S. attempt to get rid of the request-offer approach was rejected. While the U.S. then offered concessions at the mid-term review, the concessions were made as an addendum because their implementation hinges on a successful outcome in the agricultural negotiations. The U.S. imports about 15 percent of traded agriculturally based tropical products.

### *Barriers Restrain Tropical Trade*

Tropical products were a priority in the last two rounds of multilateral trade negotiations (MTN's) because trade in these products is essential to many developing countries. Developing countries supply 85 percent of traded tropical products. Developed countries use tariff and non-tariff restraints on trade in tropical products for a variety of reasons:

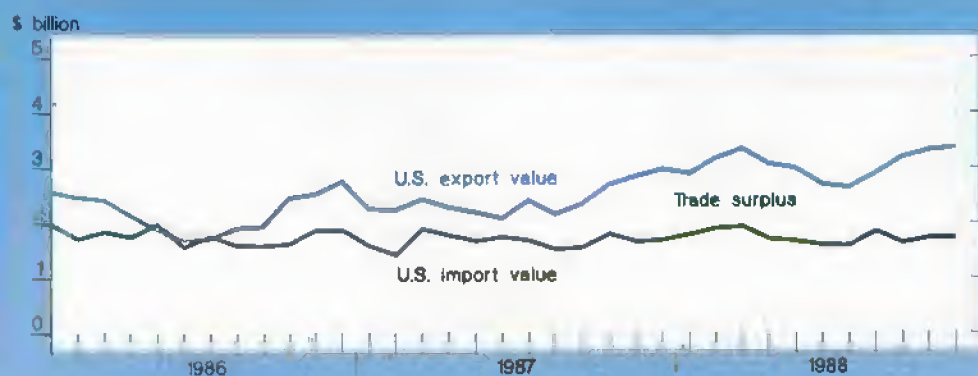
- protection of existing preferential treatment; for example, the EC agreement for lower tariffs on imports from the 65 African, Caribbean, and Pacific countries that signed the third Lome Convention, and U.S. duty-free concessions given to Caribbean countries under the Caribbean Basin Initiative;
- generation of revenue from import fees; and
- protection of national processing industries, particularly for coffee, tea, and cocoa.

While tariff barriers for many primary tropical products have been reduced under the request-offer approach in a number of developed countries, tariffs remain high on many other processed tropical products.

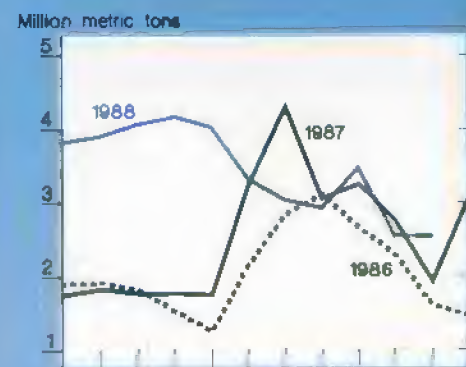


# U.S. Agricultural Trade Indicators

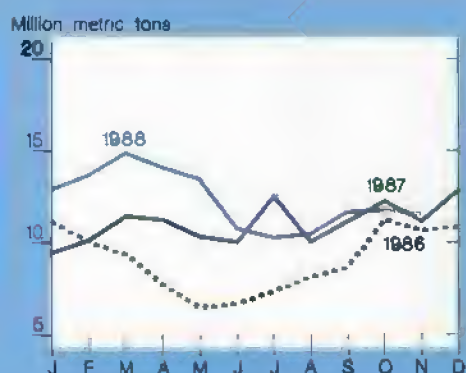
## U.S. agricultural trade balance



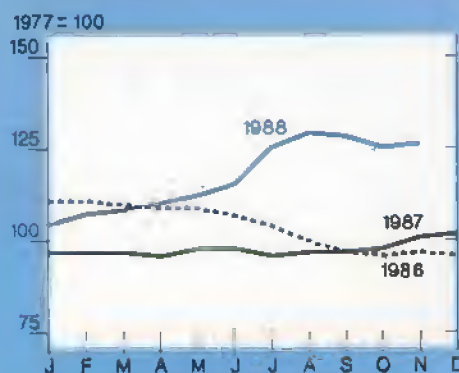
## U.S. wheat exports



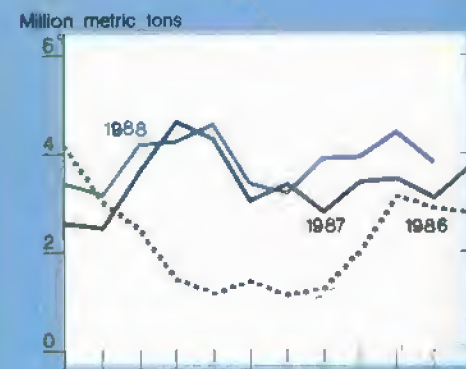
## Export volume



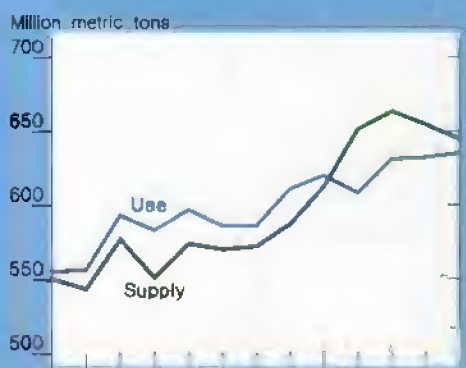
## Index of export prices



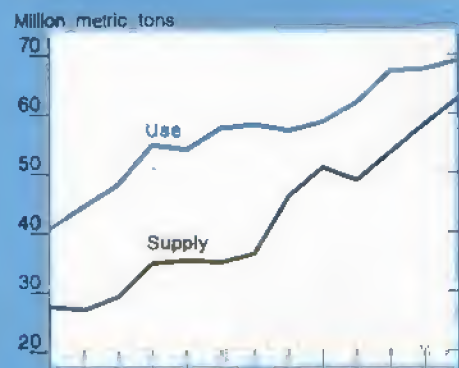
## U.S. corn exports



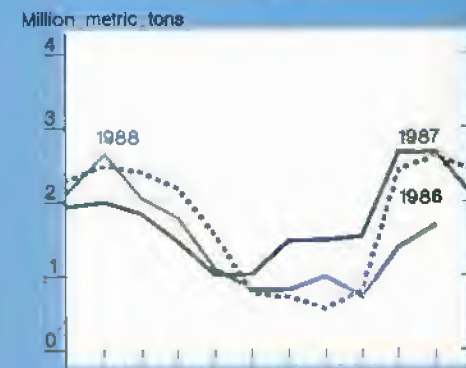
## Foreign supply & use of coarse grains



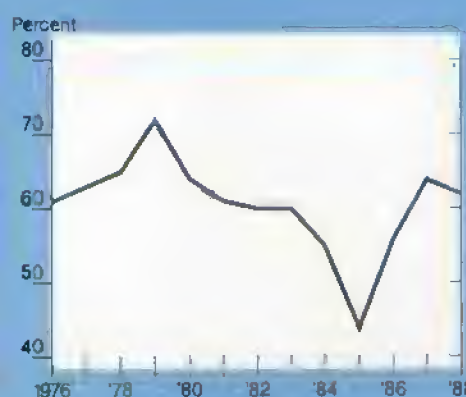
## Foreign supply & use of soybeans



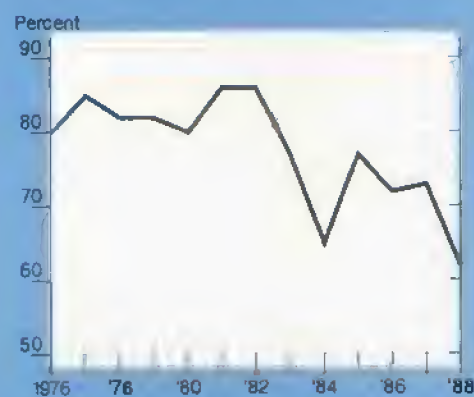
## U.S. soybean exports



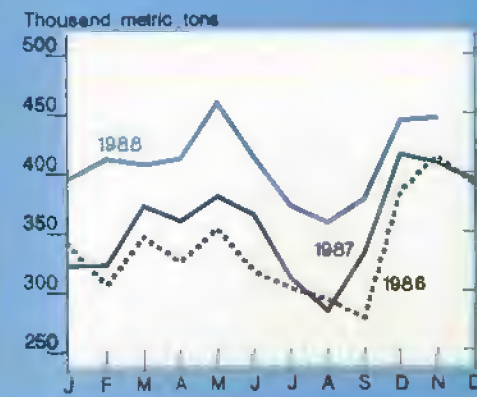
## U.S. share of world coarse grains exports<sup>12</sup>



## U.S. share of world soybean exports<sup>12</sup>



## U.S. fruit & vegetable exports<sup>3</sup>



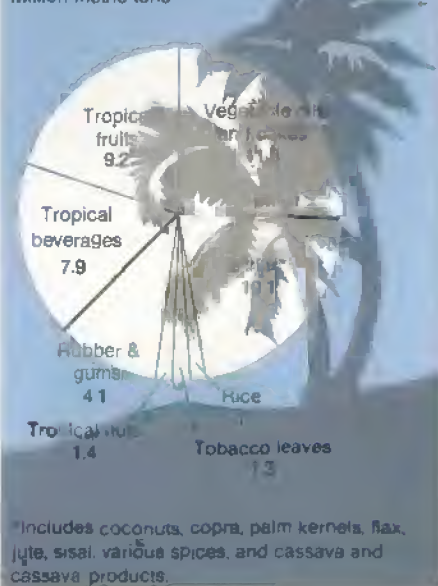
<sup>1</sup>Excluding intra-EC trade

<sup>2</sup>October–September years.

<sup>3</sup>Includes fruit juices.

## Beverages, Fruits, and Oils Dominate World Trade in Tropical Products

Million metric tons



Protectionist measures used by developed countries to protect national processing industries may be the greatest hurdle for developing countries seeking tariff reductions. Most tropical product exports from developing countries are primary commodities, such as green coffee and cocoa beans. Trade in primary commodities has been somewhat liberalized for many years, because developing countries are often the only source of supply.

On the other hand, development of processing industries in developing countries has been inhibited by the high tariff rates that many developed countries levy on imports of processed tropical products. Tariffs are progressively higher for goods further down the production line. This system of cascading tariffs, known as "tariff escalation," limits the export earnings of developing countries to relatively lower priced, unprocessed, primary commodities.

Non-tariff barriers such as regulations, subsidies, and quotas have become more common in recent years with the gradual reduction of tariffs, especially for processed tropical products. The effect of most non-tariff barriers is difficult to assess. For example, while health and food safety regulations, such as pesticide tolerances on fruits and vegetables, serve

a legitimate purpose in protecting consumers, these regulations can vary widely by country, complicating trade patterns.

## Tariff Reduction Lists Are Long

Negotiators in the Uruguay Round are seeking to eliminate or substantially reduce: 1) duties on unprocessed products; 2) duties on semi-processed and processed tropical products; and 3) all non-tariff measures affecting trade in tropical products.

With these objectives in mind, the U.S. proposed a trade reform to the GATT in September 1988 that departed from the request-offer approach for agriculturally based tropical products. The U.S. proposal called for the elimination of all barriers affecting market access in all countries for an agreed list of tropical products, with a focus on those products where market access is a significant problem.

To reach an agreement at the midterm review in December, however, countries participating in the tropical product negotiations entered into a request-offer process without the participation of the U.S.; an interim package was arrived at in November 1988. Key negotiators included the EC, Canada, Japan, Brazil, Colombia, Australia, Austria, Malaysia, Thailand, Switzerland, Finland, Iceland, Norway, Sweden, Guatemala, Honduras, Costa Rica, El Salvador, Nicaragua, and Mexico. Each country offered tariff concessions on various products, but only a few offered to eliminate their quotas on selected items.

The U.S. then offered a separate package of concessions at the midterm review. The package provided for a 25-percent reduction on the tariffs of 43 products, including cocoa paste and powder; selected spices, essential oils, and plants; copra; palm kernels and nuts; cassava; fresh dasheens; pignolia nuts; dried and frozen bananas and plantains; palm hearts; lychees; preserved yucca; rattan plaiting products; and jute yarn and fabrics.

The EC also offered tariff cuts of 20 to 100 percent on a list of about 78 products. Over the entire group, the cuts averaged about 57 percent. While the EC's concession list was more extensive

than the U.S. list, U.S. markets for many tropical products addressed by the EC, such as coffee and tea, are already duty free. Close to 75 percent of the listed tropical agricultural products under consideration have duty-free access to U.S. markets.

Although the agreements on tropical products are on hold until the April meeting, several countries already have announced their intent to implement the concessions immediately. [Kate Buckley (202) 786-1289]

## THE U.S.-CANADA FREE TRADE AGREEMENT GOES INTO EFFECT

After 2-1/2 years of formal negotiations between the United States and Canada and intense debate in the legislatures of both countries, the U.S.-Canada Free Trade Agreement (FTA) went into effect on January 1, 1989. The basic agreement was completed in October 1987 and signed by President Reagan and Prime Minister Mulroney in January 1988. The U.S. Congress added the implementing legislation and gave final approval to the FTA in September.

The debate over the agreement was much more intense in Canada than in the U.S. The Prime Minister was forced to call a national election after the Canadian Senate, an unelected body dominated by the opposition Liberal Party, refused to pass the agreement. The election, which served as a national referendum on the FTA, returned Mulroney and his Conservative Party to power. The Canadian Parliament approved the FTA on December 30.

Although the provisions of the FTA are not expected to have a major impact on the composition and size of U.S.-Canadian agricultural trade, growers and processors of some commodities, especially in border areas, may feel some impacts.

## Major Agricultural Provisions Will Lower Tariffs and Ease Quotas

Most of the agricultural provisions in the FTA will lower tariffs and ease quotas. Both countries will remove all agricul-



tural tariffs within 10 years. However, during the first 20 years of the agreement, tariffs for some fresh fruits and vegetables periodically could be restored for up to 180 days, provided certain price and acreage conditions are met.

Neither country can use direct export subsidies to increase farm exports to the other. Other provisions liberalize quotas on trade in Canadian poultry and eggs. Trade restraints on some grains and red meat also were relaxed. Additional provisions aim to harmonize the two countries' health and sanitary regulations. Import duties and other restrictions on U.S. wines will be phased down.

Agricultural trade between the two countries was about \$5 billion in 1987, with the U.S. having a \$600-million surplus. Canada is one of the top five single-country markets for U.S. farm exports. The FTA is expected to stimulate a modest expansion in trade between the two countries.

#### ***Groups in Both Countries Concerned About FTA's Impact***

Farmers and other agricultural groups on both sides of the border have voiced concerns about the possible effects on their commodities. In Canada, where opposition to some parts of the FTA has been vociferous, the FTA has already triggered several policy changes. Canadian farmers and agricultural groups have voiced concerns that the FTA could be interpreted as boosting marketing opportunities for some U.S. products such as wine and processed products.

#### ***U.S. Worries Are Primarily About Grain***

Most U.S. producer groups' concerns focused on the grain trade, which could be affected by two provisions in the FTA. One provision says that Canada will remove transportation subsidies on eligible grain and oilseed products that are exported to the U.S. through Canada's west coast ports. Even though this will benefit U.S. producers by raising Canadian costs, and perhaps by reducing Canadian exports, some farm groups have questioned why the subsidies were not removed on products exported from ports on the Great Lakes or St. Lawrence Seaway.

This provision returns the transportation subsidies to pre-1984 conditions, when Canada began allowing transportation subsidies on products exported to the U.S. through west coast ports. Transportation subsidies on products exported to the U.S. through Thunder Bay on Lake Superior have been in place since 1897.

The second provision concerning grain, especially wheat, says that Canada will remove its import licensing requirements for wheat, barley, and oats when U.S. support levels for these commodities are equal to or less than support in Canada. The method for calculating support levels is set out in a technical appendix to the FTA.

U.S. legislation (Section 22 of the Agricultural Adjustment Act of 1933) was amended to authorize the President to exempt specified Canadian products from import restrictions on some farm products, including wheat, barley, and oats. However, both countries retain the right to impose import restrictions on grains if imports increase significantly as a result of a substantial change in support programs. U.S. wheat growers are concerned that they will not gain access to the Canadian market if wheat support levels remain higher in the U.S., while Canada will have unrestrained access to the large U.S. market.

U.S. millers are concerned about increases in U.S. imports of Canadian wheat flour. Canada has excess capacity in its flour milling industry. With recent changes in its two-price wheat system, Canada's domestic wheat prices could fall (see below). Some U.S. millers fear that Canadian millers will use the excess milling capacity to process cheaper Canadian wheat and then export flour to the United States.

#### ***Canadian Concerns Are Broad Based***

The broad list of Canadian concerns touches on a variety of commodities and policies. Strident protests against the FTA have come from grape growers and wine producers, especially in Ontario. The FTA provides for the removal of discriminatory treatment in provincial pricing and distribution policies toward U.S. wine. Canadian grape and wine producers have argued that removal of protection would put them out of busi-

ness. The Canadian Federal and provincial governments already have put together assistance packages to compensate producers for taking vines out of production and for future loss of income.

Canada has changed its two-price wheat policy, at least partly in response to perceived pressure from the FTA provision that could force open the border to U.S. wheat exports. Since April 1986, Canada's domestic wheat price has been considerably higher than export prices. The high price could not be maintained if wheat imports were allowed.

Canadian millers have protested this dual-price policy for several years, and the possibility of importing U.S. wheat under the FTA provided further impetus to change it. As of August 1988, domestic wheat prices are set for a 2-month period based on current prices in the "North American" market. If Canada removes import licenses because support levels are lower in the U.S., Canadian wheat prices probably will fall to market-determined levels.

The provision that tariffs on all products are to be removed within 10 years has evoked strong concern from Canadian food processors. Because production and trade of many Canadian agricultural products are regulated by marketing boards—including manufacturing grade milk, poultry, eggs, wheat, barley, and many fruits and vegetables—Canadian processors must pay higher prices for raw materials than U.S. processors pay. The Canadians worry that once tariffs come off, those processed products not protected by import quotas will be unable to compete with U.S. products.

Partly in response to these fears, Canada imposed a new global quota on imports of ice cream and yogurt in January 1988. The U.S. is protesting this new global quota in the GATT, while Canada is considering protesting U.S. import restrictions on some dairy products. *[Carol Goodloe (202) 786-1610]*



## Farm Finance

### LENDERS' FARMLAND HOLDINGS DECLINE

Farmland held by the major farm lenders fell about a million acres during first-half 1988. The holdings were valued at \$3.3 billion, down about \$500 million from the mid-1987 peak. Lenders acquired many properties through farmer bankruptcy, foreclosure, or deed in lieu of foreclosure during the farm financial crisis of the mid-1980's.

The drop in lenders' property holdings reflects an improving farm economy and rising land values. Earlier fears that lenders would dump acquired farmland on already weak land markets now appear unfounded. The drought last year probably had little net effect on lenders' holdings.

#### *Life Insurance Companies Hold the Most*

Life insurance companies are now the largest holders of foreclosed farmland, having passed the Farm Credit System (FCS) in mid-1987. Life insurance company holdings grew until the end of 1987, when they reached an estimated 4.3 million acres worth \$1.6 billion; holdings have fallen since then.

FCS holdings peaked at the end of 1986 at 2.7 million acres worth about \$1 billion. Most FCS institutions have been pursuing a more aggressive land-sales strategy than the life insurance companies.

Compared to the Great Depression, lenders' current farmland holdings are low. At the end of 1937, the leading farm lending institutions held about 28 million acres, versus the recent peak of 9 million at the end of 1987. However, the runup in holdings during the 1980's took only a few years; the Depression holdings grew throughout the 1920's and 1930's.

#### *Could Sales Depress Land Markets?*

Have lender holdings been large enough to depress land prices? At the 1987 peak, holdings were only 0.9 percent of the roughly 1 billion acres in farms. In terms of value, acquired farm properties were equivalent to only 0.7 percent of the nation's then-\$550 billion in farmland and buildings.

Although the lender-acquired farmland is a small share of total farmland, holdings are larger relative to annual farmland sales. During the first quarter of 1987, lender holdings were equivalent to about

24 percent of annual farmland sales in terms of acreage, and nearly 20 percent in terms of value.

Lender holdings are large enough to overshadow other influences on land prices. But sales of holdings have not depressed prices because lenders do not sell all their holdings in one year. Life insurance companies, with their large holdings, generally have been slow to sell. Attempts by the Farmers Home Administration (FmHA) to sell acquired farmland have been hampered by Congress and the courts. Nevertheless, the potential impact of lender holdings is relatively greater in some regions.

#### *New Law Could Influence Prospects*

The land market is strengthening despite sales of lender holdings. Stabilizing or increasing land values have helped lenders sell off some of their acquired properties. Optimism in the land markets stems from expectations of higher farm returns and manageable interest rates. Farmland prices could be

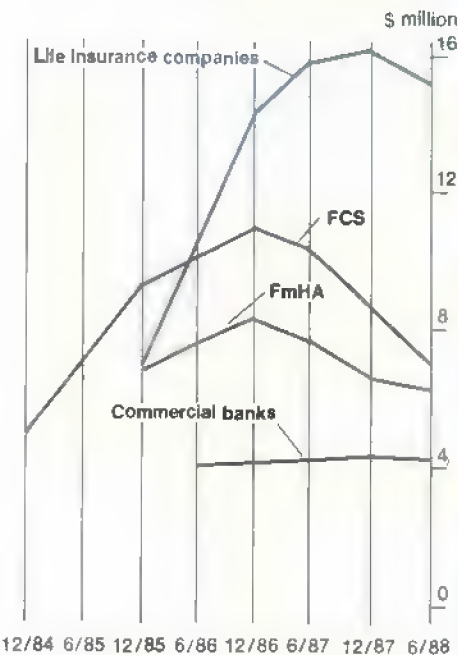
Acquired Farm Property Held by Institutional Lenders

Date and lender	Property holdings		Distribution of holdings	
	Acreage	Value	Acreage	Value
	Number	\$ thous.	--Percent--	
December 31, 1986				
Farm Credit System 1/	2,732,500	1,093,341	37.0	28.9
Commercial banks	752,300	414,100	10.2	11.0
Farmers Home Administration	1,466,449	831,239	19.9	22.0
Life insurance companies	2,424,000	1,442,000	32.9	38.1
Total	7,375,449	3,780,680	100.0	100.0
June 30, 1987				
Farm Credit System 1/	2,429,900	1,032,882	28.8	27.1
Commercial banks	917,300	422,200	10.9	11.0
Farmers Home Administration	1,576,392	777,402	18.7	20.4
Life insurance companies	3,508,000	1,582,000	41.6	41.5
Total	8,431,592	3,814,484	100.0	100.0
December 31, 1987				
Farm Credit System 1/	2,265,000	872,547	25.2	24.3
Commercial banks	924,400	438,000	10.3	12.2
Farmers Home Administration	1,543,316	656,582	17.2	18.3
Life insurance companies	4,249,000	1,619,000	47.3	45.2
Total	8,981,716	3,586,129	100.00	100.00
June 30, 1988				
Farm Credit System 1/	1,438,405	706,115	18.1	21.5
Commercial banks	882,300	428,000	11.1	13.0
Farmers Home Administration	1,487,845	628,591	18.8	19.1
Life insurance companies	4,125,000	1,524,000	52.0	46.4
Total	7,933,550	3,286,706	100.0	100.0

1/ Includes acquired property held by Federal Land Banks, Federal Land Bank Associations, and Production Credit Associations, but excludes the small amount of property acquired by the Banks for Cooperatives, which do not make loans to individual farmers. 2/ Acres estimated by dividing the value of acquired property held on December 31, 1986, by the per acre value of FCS-acquired property holdings on March 31, 1987.



## Lenders' Farmland Inventories Drop



pushed down if commodity price supports or other Government programs were cut substantially, because much of the current strength in the land markets stems from strong Government support for agriculture.

Lender-held farmland could be reduced by the Agricultural Credit Act of 1987. The act affects both the number of farms entering lenders' land inventories and lenders' management of the inventories.

The act has its greatest influence on the FCS and FmHA. It authorizes a 3-year demonstration program that allows farmers to purchase FCS-acquired farmland at interest rates subsidized through the FmHA. Under the program, the FCS could be required to make available up to \$250 million of its farm inventory for purchase at fair market value by farmers who are interested in family-size farms and who qualify for FmHA loan guarantees. FmHA would guarantee loans by other lenders at subsidized rates.

The 1987 act also authorizes Federal matching grants to qualifying State farm loan mediation programs. The grants could encourage more mediation and fewer foreclosures, thereby reducing the number of farms going into lenders' inventories. In addition, required restructuring of certain FCS and FmHA loans

## Lender Data Come From Many Sources

Agricultural lenders experienced increased loan losses and problem loans during the early to mid-1980's, resulting in reduced earnings. As the farm sector's financial difficulties continued, lenders acquired a growing amount of farmland through foreclosure, deed in lieu of foreclosure, and farmer bankruptcy.

The major institutional lenders--the Farm Credit System (FCS), commercial banks, the Farmers Home Administration (FmHA), and life insurance companies--together held about 78 percent of the \$76.7 billion in farm real estate debt (excluding households) on December 31, 1988. The remaining 22 percent (\$17.0 billion) was held by "individuals and others," many of whom were owners who sold their farms on contract or took a mortgage as part of the sale agreement. Little is known about acquired or reverted property held by the "individuals and others" group.

Data on farmland acquired by FCS were collected by the Farm Credit Corporation of America, an FCS entity, with the farms valued at current market prices.

For commercial banks, data are from the Quarterly Statement of Income and Condition reports held by the Federal Reserve Board of Governors. Real estate is valued in this series as the lesser of book or market value, minus depreciation, with book value generally defined as the original loan amount.

For commercial banks, net property holdings are converted into estimates of farmland holdings by multiplying each bank's net real estate holdings by the ratio of farm loans secured by real estate to total real estate-secured loans. The commercial bank acreage estimates are computed by summing the estimated value of farmland holdings for all banks in each State and dividing by the ERS estimates of the State-level per acre farmland values in February of each year in question.

The FmHA-acquired farmland data are published monthly in the agency's Farmer Inventory Property report, with values set by appraisal. Life insurance company holdings, valued at market levels, were supplied by the companies. [Jerome Stam (202) 786-1892, Gregory Gajewski (202) 786-3313, and Steven Koenig (202) 786-1893]

likely will reduce foreclosure rates for these lenders.

On the other hand, new rules requiring that former FCS and FmHA borrowers have first rights to lease or buy back lost property will slow future acquired-property sales. Former FmHA borrowers also have been given strong homestead protection rights. [Jerome Stam (202) 786-1892, Gregory Gajewski (202) 786-3313, and Steven Koenig (202) 786-1893]

## BANK FAILURES MAY HAVE PEAKED

According to a forecasting model, between 94 and 136 banks likely will fail this year, down from more than 200 in each of the past 2 years. Despite last year's drought, agricultural bank failures are projected between 21 and 43, down dramatically from 1987's peak of 75. Agricultural banks are commercial banks that specialize in farm lending.

The projections, based on mid-1988 conditions, are consistent with reports of improving bank profitability that are marred only by the continuing oil-economy problems in the Southern Plains and some Delta States.

Improvements in the farm economy are saving many of the weaker agricultural banks. Bank losses on loans tend to lag changes in borrowers' fortunes. For example, the agricultural bank failure peak in 1987 came well after farmers' financial health began to improve.

## Bank Failures And the Drought

Because of the lag between changes in borrower health and banking health, the full extent of drought-induced loan losses on agricultural banks is not yet known. But there are indications that these losses will be small. Large carryin

grain and oilseed stocks, combined with high commodity prices and Federal drought assistance, protected most farmers from financial disaster.

Only 10 of the 41 agricultural bank failures in 1988 could be linked to the weather. The 10 banks were headquartered in counties hit hardest by the drought. All 10 failed in the last 7 months of the year, well after the drought's onset. Yet according to forecasts, 9 of the 10 had an above-average chance of failing last year, regardless of local weather.

### **Oil Markets The Culprit Again**

U.S. bank failures set another post-Depression record in 1988, in part because of an unexpected drop in oil prices. Most analysts expected the price of oil to stabilize after tumbling more than 60 percent in the first 7 months of 1986. Instead, the price of West Texas intermediate crude hit \$13.65 a barrel on November 17, 1988, down from \$18.65 a year earlier.

The drop accelerated loan defaults in energy-dependent areas and wiped out the equity of many local financial institutions. Over 78 percent of the banks that failed last year were in the five-State energy belt--Texas, Oklahoma, Louisiana, Kansas, and Colorado.

Agricultural banks in the energy belt were also hurt by the drop in oil prices, even though they typically do not make big energy loans. In 1988, 54 percent of the agricultural banks that failed were in the energy belt, up from 47 percent in 1987.

Partly because world oil markets didn't recover in 1988, regulators declared insolvent and closed the 42 bank subsidiaries of First Republicbank Corp., a Texas-based multibank holding company (MBHC). First Republic's bank subsidiaries were purchased and reopened by North Carolina National Bank Corp. in the third quarter of 1988, so customers received uninterrupted service.

### **Commercial Bank Failures**

	Total 1/	Agricultural 2/	Rural 3/
1981	7	1	3
1982	33	10	19
1983	44	7	15
1984	78	31	41
1985	118	69	81
1986	144	66	83
1987	202	75	98
1988	221	41	72
1989 (forecast) 4/	94 - 136	21 - 43	29 - 55

1/ Totals exclude mutual savings banks, savings and loan associations, commercial banks not insured by the FDIC, and banks headquartered in U.S. possessions and territories. Failures are those banks declared insolvent and closed by their chartering authorities plus those granted open bank assistance by the FDIC. 2/ Banks reporting above-average farm loan concentrations. Not all agricultural banks are rural banks. 3/ Banks headquartered in a nonmetropolitan county. 4/ Forecast failure probabilities are computed for each bank, based on data reported for June 30, 1988, and the dependency of the bank's home county on the oil and gas sector in 1982. The all-bank failure forecast is computed by summing the predicted failure probabilities of all banks.

Shortly before they failed, First Republic's banks held \$230 million in farm loans, although only one subsidiary bank specialized in agricultural lending. The average agricultural bank has \$34 million in assets.

### **Energy-Related Banks Still The Most Troubled**

Bank-failure patterns show that financial stress has shifted from the farm to the oil well. In 1985, agricultural banks accounted for almost 59 percent of all bank failures. Last year, only about 19 percent of the 221 failed banks were agricultural. In 1987, there were 45 bank failures in agricultural counties, but in 1988 there were only 20.

While 89 banks in counties dependent on oil and gas failed in 1987, 112 energy-county banks failed in 1988. That's a 4.2-percent annual failure rate for 1988, compared with 1.6 percent for all banks.

The average size of bank failures increased last year as financial problems shifted from farms to energy. In 1988, the average failing bank had \$220 million in assets prior to failure, up from \$50 million in 1987.

### **Fewer Agricultural Banks Vulnerable to Failure**

The number of banks vulnerable to failure has dropped each year since 1987.

The number of vulnerable agricultural banks has dropped faster.

Because about 1 percent of U.S. banks failed in 1986, banks with forecast failure probabilities above 1 percent are defined as the most vulnerable. This procedure identified 1,760 banks most vulnerable to failure in 1987. Most banks that failed in 1987 came from this vulnerable group, and many of the survivors have proven to be most at risk in subsequent years.

Using the vulnerable bank concept, the forecasting model correctly predicted 88 percent of the 198 banks that failed in 1987, but incorrectly identified 12 percent of surviving banks as vulnerable to failure (the forecasts exclude banks in Alaska and Hawaii). In 1988, the model correctly forecast 71 percent of the 215 failures, and incorrectly predicted 10 percent of surviving banks as failures. But if the surprise failure of First Republic's banks is excluded, the model correctly forecast 88 percent of 1988's failures as well.

A bank's probability of failure in a calendar year is predicted from eight bank-level financial ratios from the previous June, two indicators of regulators' reluctance to move against big or MBHC-affiliated banks, and the bank's home-county dependence on the oil and gas sector.



# Banks Vulnerable to Failure 1/

	Total banks 2/	Ag. banks 3/	Banks in oil & gas counties 4/	Banks in farm counties 5/	Banks affiliated w/multibank holding companies
<b>1987</b>					
Number	1,760	717	665	497	288
% of U.S. banks 6/86	12.5	14.8	24.0	14.9	7.1
% of vulnerable banks 6/	100.0	40.7	37.8	28.2	16.4
Avg. assets (\$ mil.)	63.5	26.4	57.4	25.1	134.4
<b>1988</b>					
Number	1,534	543	609	392	280
% of U.S. banks 6/87	11.2	11.7	23.0	12.0	6.7
% of vulnerable banks 6/	100.0	35.4	39.7	25.6	18.3
Avg. assets (\$ mil.)	103.1	25.3	68.9	25.8	249.0
<b>1989</b>					
Number	1,330	431	511	296	247
% of U.S. banks 6/88	10.1	9.6	21.1	9.3	5.9
% of vulnerable banks 6/	100.0	32.4	38.4	22.3	18.6
Avg. assets (\$ mil.)	100.0	27.0	75.9	31.7	261.6

1/ Vulnerable banks include all those with forecast failure probabilities during the year greater than 0.98 percent, the average failure probability in 1986. Forecast failure probabilities are based on bank-level financial data reported the previous June and the dependency of the bank's home county on the oil and gas sector in 1982. Average assets are as of the previous June. 2/ Excludes banks in Alaska, Hawaii, U.S. possessions and territories, or reporting zero loans, assets, or deposits the previous June. 3/ Banks reporting above average farm loan concentrations. 4/ Counties where oil- and gas-sector earnings accounted for more than 1.85 percent of total county earnings in 1982, the average for all counties. 5/ Counties where farm sector earnings accounted for more than 5.3 percent of total county earnings in 1982, the average for all counties. 6/ Percents may not sum to 100 because banks may fall into several categories.

Between 1987 and 1989, the number of vulnerable banks fell 24 percent, and the number of vulnerable agricultural banks fell 40 percent. This year, the number of agricultural banks vulnerable to failure is 431, down from 1988's 543. Moreover, the average size of the vulnerable banks, after increasing in 1988, is down this year.

## Changes in the Economy May Affect Failures

If oil prices plummet again, many more of the 511 vulnerable banks in energy counties could be pushed over the edge. Even if oil prices remain stable, most failures are expected to be in the five-State energy belt.

If the economy slides into a recession (see article on general economy in this issue), rising loan defaults could force hundreds more of the 1,330 vulnerable banks into insolvency. Not since the late 1920's have so many commercial banks been vulnerable to failure near the peak

of a business-cycle recovery. When the economy weathered the 1981-82 recession, commercial banks were stronger than now.

While last year's drought apparently did not increase the number of bank failures, a drought this year in the same areas could force a number of vulnerable agricultural banks into insolvency in 1990.

## Farm Credit: The Outlook Improves

With the improvement in farm income and cuts in farm debt since the early 1980's, well-capitalized farmers should have little trouble getting credit from agricultural banks.

Agricultural banks have more than ample deposits to support new loans, although their loan-deposit ratios are beginning to climb as the demand for farm loans rises. One source of demand is farmers gearing up to expand planted acreage for the 1989 harvest. Also, some farmers in drought-stricken areas increased their demand for credit to cover reduced cash flow.

Through the drought's peak in mid-1988, agricultural banks in areas hit hardest were in a stronger financial position and were making relatively more loans than agricultural banks elsewhere. The banks appear to have supported their farm borrowers through the bad weather.

[Gregory Gajewski (202) 786-3313]



## General Economy

### INFLATION UNCERTAINTY CLOUDS 1989 PROSPECTS

For the first half of 1989, relatively small movements in inflation could shift the economy's direction. If inflation subsides to the lower end of the 3.5- to 4.5-percent range expected by many analysts, interest rates will remain steady or even fall a little and expansion likely will continue. This will happen even if real GNP growth is more rapid than analysts expect.

But more inflation is likely to be met with tighter money and rising interest rates, which might jeopardize the expansion. Such a surprise could come in the form of another drought or an oil price increase.

Inflationary forces during 1989 are working in opposite directions. Overall demand probably will continue rising, although at a slower pace than in 1988. Given the 9-year high in capacity utilization rates of plants and equipment, and the 14-year low in unemployment rates, further demand increases are likely to push up prices and wages.

At the same time, however, business spending on new equipment accounted for about 30 percent of the increase in real GNP in 1988. This augmented business capacity and could allow demand increases to be met without substantial price pressure.

Finally, while the exchange value of the dollar has fluctuated in the last 18 months, no decided downward trend is discernible, suggesting that prices for imported goods are not likely to rise much. That should also help slow the underlying inflation rate.

With these offsetting forces, the bright outlook for 1989 is clouded by uncertainty about interest and inflation rates.

### 1988 a Good Year

Data for 1988 paint a rosy picture of the general economy. Real GNP grew 3.8 percent, the fastest in 3 years, while consumer price inflation matched its 4.4-percent rate of 1987. The real net export deficit improved by more than \$20 billion.

With an 18-percent increase in inflation-adjusted exports, capacity utilization rose nearly 2 percentage points, spurring business spending on new plants and equipment by 9.5 percent, the biggest jump since 1984. The manufacturing sector fared well, with industrial production rising about 4.8 percent and manufacturing jobs rising by 700,000.

The big employment gains in manufacturing, coupled with continued gains in the service sector, helped inflation-adjusted disposable income to rise about 3.5 percent. Real disposable income per employed person rose in 1988, after a decline in 1987, because a greater share of employment was in higher wage jobs.

Yet short-term interest rates rose, the Federal budget deficit worsened slightly, and the underlying inflation rate may have increased. Short-term interest rates rose nearly 2 percentage points during 1988, to levels not seen since early 1985. The Federal deficit increased slightly from \$150 billion in fiscal 1987 to \$161 billion in fiscal 1988, but remained well below the record \$221 billion in fiscal 1986.

Assuming no major policy changes or shocks to the domestic economy, the outlook for 1989 is for real GNP growth of around 3 percent, led by exports and business spending on new plants and equipment. Overall consumer price inflation is expected by many analysts to be between 3.5 and 4.5 percent. The interest rate outlook depends on three main fac-

tors: underlying inflation, monetary policy, and real economic growth.

### Underlying Inflation Probably Rose

Higher underlying inflation usually drives up interest rates. While overall consumer price inflation was constant between 1987 and 1988, increases in producer prices and in some components of consumer prices suggest that the underlying inflation rate, which excludes the more volatile food and energy prices, increased.

Producer prices for finished goods rose 4 percent between December 1987 and December 1988, compared with an average of 1.8 percent for the previous 4 years. Excluding finished food and energy goods, producer prices rose 4.3 percent, compared with 2.2 percent over the previous 4 years. Consumer prices, excluding food, energy, and shelter, rose 4.7 percent in 1988, nearly a full percentage point above the average for the previous 4 years.

Per-unit labor costs, another indicator of the underlying inflation rate, rose 4.7 percent by the third quarter of 1988 from a year earlier. Unit labor cost increases averaged about 2.5 percent in the previous 4 years.

Some of the increases in nominal interest rates during 1988 were probably due to the quickening of the underlying inflation rate. As underlying inflation continues up, so will nominal interest rates.

### Monetary Policy Could Tighten

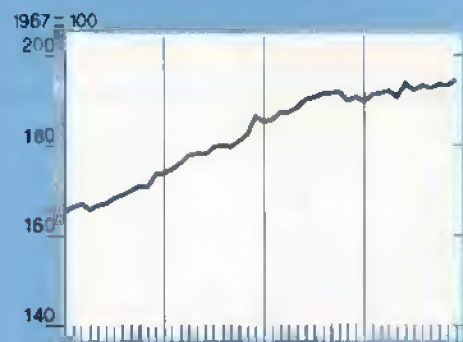
If the underlying inflation rate rises, policymakers may attempt to slow the economy by reducing demand. Statements made in January by Federal Reserve Board Chairman Alan Greenspan suggest a concern that inflation is already too high, and a further concern that inflation will intensify if real GNP growth does not slow to 2.5-3 percent.

Greenspan said that the Fed would "err on the side of restrictiveness," meaning that concern about rising inflation would—at least momentarily—take precedence over short-term growth and employment considerations. Similar statements made

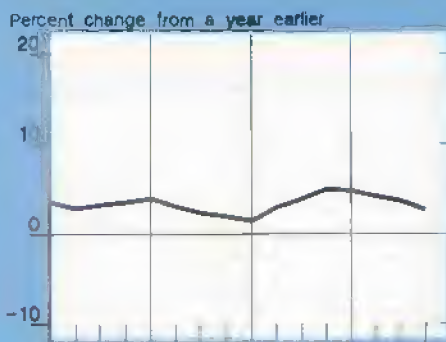


# General Economic Indicators

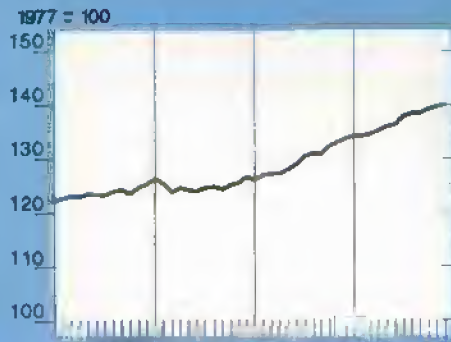
Composite leading economic indicators



Gross national product<sup>1</sup>



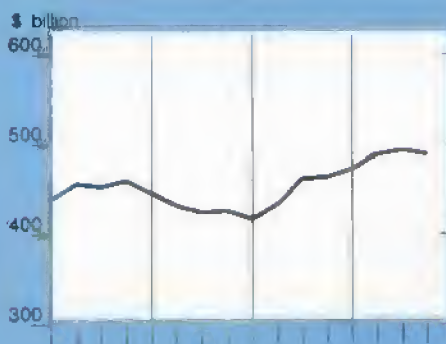
Industrial production



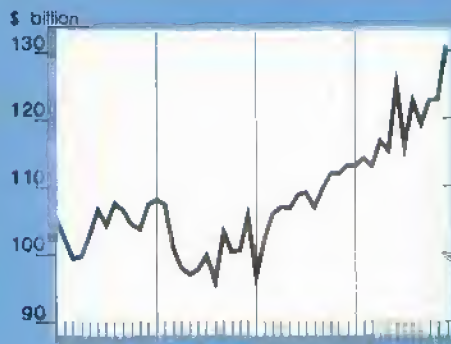
Disposable income and consumption expenditures<sup>2</sup>



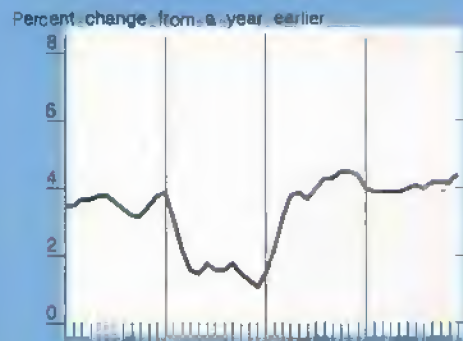
Nonresidential fixed investment<sup>2</sup>



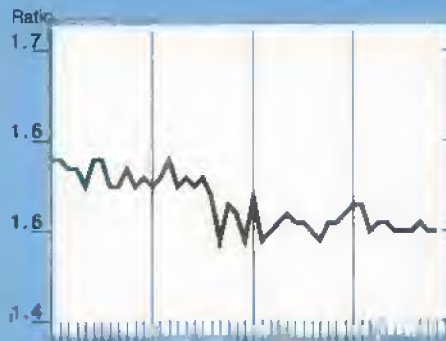
Manufacturers' durable goods orders<sup>3</sup>



Consumer price index



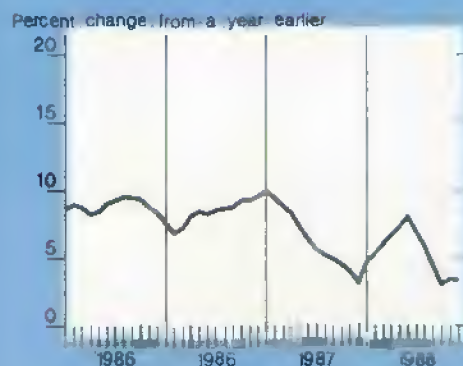
Inventory/sales<sup>4</sup>



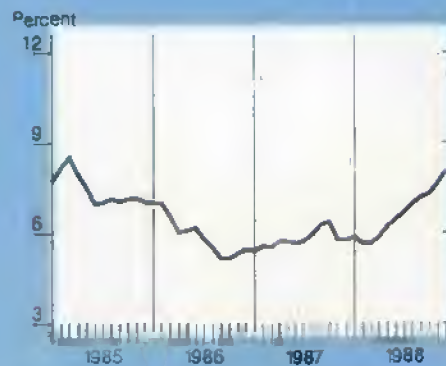
Unemployment rate<sup>5</sup>



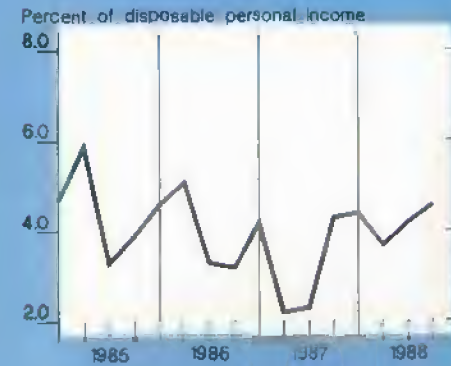
Money supply (M2)



3-month Treasury bill rate



Savings rate<sup>6</sup>



<sup>1</sup>Percent change from a year earlier in 1982 dollars. Seasonally adjusted annual rates.

<sup>2</sup>Billions of 1982 dollars, seasonally adjusted at annual rates.

<sup>3</sup>Nominal dollars. <sup>4</sup>Manufacturing and trade seasonally adjusted, based on 1982 dollar. <sup>5</sup>Seasonally adjusted.

<sup>6</sup>Calculated from disposition of personal income in 1982 dollars, seasonally adjusted at annual rates.

Sources: U.S. Dept. of Commerce, U.S. Dept. of Labor, and the Board of Governors of the Federal Reserve System

in July 1988 translated into a tighter monetary policy--slower money and credit growth--and rising short-term interest rates. Further tightening could push short-term rates even higher in 1989.

However, slower money and credit growth usually translate into a lower inflation rate after a while, which, as the economy slows, ultimately points to lower interest rates. Implementation of anti-inflation policy usually alters the relationship between long-term and short-term interest rates.

Nominal long-term interest rates depend on expected inflation over an extended period, while short-term rates reflect immediate monetary tightness. Thus, when the Fed embarks on a tighter monetary policy, short-term interest rates usually rise, while longer-term rates can remain steady or even fall with the expectation of lower future inflation.

During 1988, longer-term bond rates rose slightly in the first half of the year; over the whole year they showed no upward

trend and rates on some bonds fell. Further monetary tightening might continue to narrow the spread between long and short rates.

Consistently strong Fed policy statements may help hold down interest rates. Otherwise, uncertainty about policy may cause lenders to demand higher interest rates to compensate for a more uncertain economic environment.

#### *Real Growth May Slow*

Interest rates help determine economic growth, but the rate of growth also helps determine interest rates. Faster real growth usually increases the demand for credit and forces up interest rates. More rapid real GNP growth in the first half of 1988, led by an increase in exports (which are not directly very sensitive to higher domestic interest rates) likely helped push up interest rates of all maturities. Real GNP growth is likely to be lower in 1989 than in 1988, exerting less upward pressure on interest rates.

*[Ralph Monaco (202) 786-1782]*

#### **The Drought and the General Economy**

While the drought had a major impact on agriculture and related sectors, it had a minor impact on the general economy. The Department of Commerce's Bureau of Economic Analysis (BEA), which keeps track of GNP accounts, estimates that real GNP was reduced by 0.4 percentage points, or \$12.1 billion (1982 dollars), by the drought. This suggests that had 1988 been a more normal agricultural year, real GNP would have grown about 4.2 percent instead of the reported 3.8 percent.

While reducing annual real GNP a little, the drought dramatically affected quarterly growth, since about half of the reduction in agricultural output was accounted for in the fourth quarter. According to BEA, the real annual GNP growth rate was 1.1 percentage points lower in the fourth quarter than it would have been without the drought.

Real GNP growth will be "artificially" higher in the first quarter of 1989, when farm output returns to a more normal level. BEA expects that real GNP growth will be 2.5 percentage points higher in the first quarter, as it rebounds from the low fourth quarter. Drought-induced quarterly swings in real GNP growth make it hard to read the current state of the economy.

The drought also has made it difficult to interpret the Council of Economic Advisors' forecast of real GNP growth for 1989. The Council expects real GNP to be 3.5 percent higher in fourth-quarter 1989 than in fourth-quarter 1988, a forecast that many private analysts believe is optimistic.

But fully 0.7 percentage points of the increase will be due to the low fourth-quarter 1988 starting point. Excluding the drought's effect on real GNP growth in 1989 puts the Council's forecast increase at 2.8 percent, more in line with private opinion.



## Resources

### **SEVENTH CRP SIGNUP ADDS 2.6 MILLION ACRES**

The seventh signup for the Conservation Reserve Program (CRP), held in July and August 1988, brought an additional 2.6 million acres into the 10-year cropland retirement program. Farmers offered approximately 3.4 million acres for retirement, but not all were contracted. The latest signup raised total CRP enrollment to slightly more than 28 million acres.

Offers made by farmers for enrollment in the CRP may not be contracted for several reasons: 1) the farmer does not meet CRP eligibility criteria; 2) the land proposed for enrollment is not eligible; 3) the farmer's annual per acre rent request exceeds the maximum acceptable rate for the area; or 4) the landowner and current tenant are in disagreement over their division of CRP benefits or responsibilities.

Of the 2.6 million acres contracted in the seventh signup, only 220,000 (8 percent) were enrolled for retirement in the 1988 crop year. The remainder was scheduled for 1989 retirement.

Annual rental payments received by farmers for enrollment in the seventh signup averaged \$49.71 per acre. Annual soil erosion reductions averaged 17 tons per acre. This continues a trend



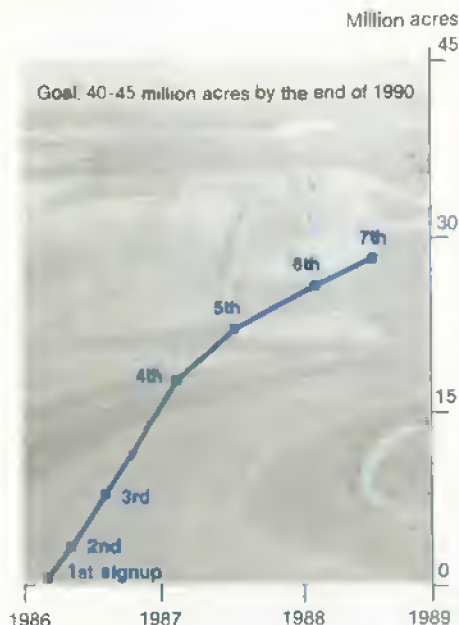
of increasing average rental payments and decreasing erosion reductions under later signups.

Close to the pattern of previous signups, most of the acreage (65 percent) was in the Northern Plains (903,000 acres), Southern Plains (374,000), and Mountain States (429,000).

Most of the contracted land (89 percent) is slated for grass cover; less than 7 percent will be planted in trees. Slightly more than 13,500 acres of filter strips also were enrolled, nearly doubling the amount of CRP land devoted to this conservation practice, which aims at enhancing water quality. The remaining acreage is scheduled to be placed in a variety of conservation practices, including food and cover for wildlife.

While the CRP's primary purpose is to reduce erosion, the program also has reduced the base acreage of USDA commodity programs, leading to budgetary savings. In the seventh signup, nearly 1.7 million acres of commodity base were retired. Of this, 798,000 acres (48 percent) represented wheat base acreage, while corn, barley, and sorghum base were reduced by 271,000, 234,000, and 137,000 acres, respectively.

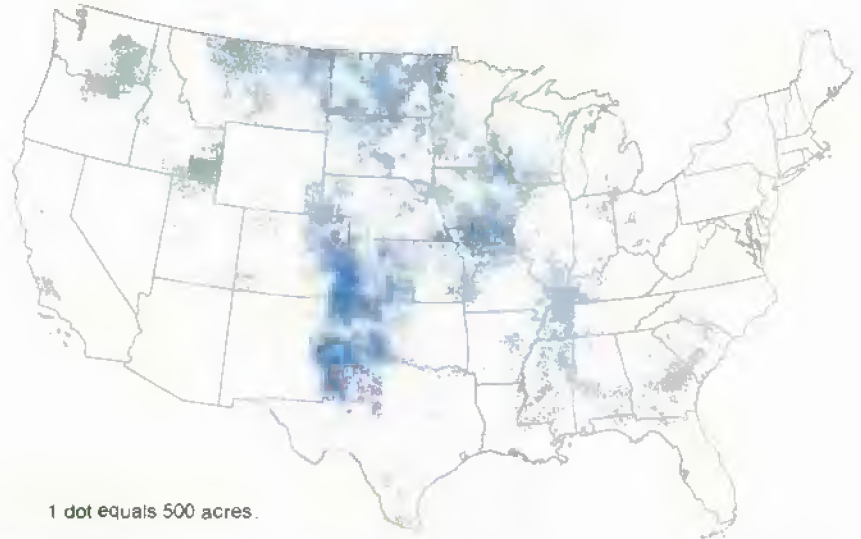
#### 12 Million Acres Still Needed To Reach CRP Goal



The eighth CRP signup was held February 6-24, 1989, and results will be known by early summer. Beginning with the eighth signup, program eligibility is expanded to include fields with wetlands farmed for at least 2 years

between 1981 and 1985, and fields having evidence of substantial scour erosion, which is caused by overflowing water. Fields placed into the CRP under these eligibility conditions generally must be planted with trees. [Tim Osborn (202) 786-1434]

#### CRP Enrollment Totals 28 Million Acres

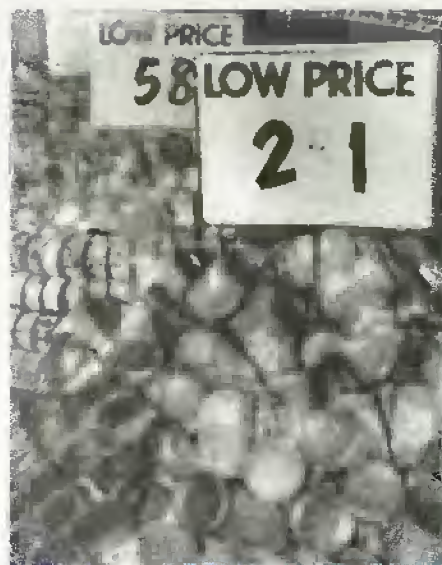


#### Regional Summary of Seventh CRP Signup

	Seventh signup				Signups 1-7
	Contracted acres	Average erosion reduction	Average rental payment	Average cover estab. cost share	Total acres enrolled
	Acres	Tons/acre/yr.	\$/yr.	\$/acre/yr.	Million
Northeast	27,381	12	62.77	48.43	.16
Appalachia	75,099	22	54.97	39.30	.94
Southeast	127,085	13	44.52	38.66	1.38
Delta States	68,237	16	45.21	32.07	.85
Corn Belt	363,668	16	81.12	41.96	3.92
Lake States	189,119	15	58.78	30.97	2.26
Northern Plains	902,653	14	43.75	35.29	6.94
Southern Plains	373,527	29	40.52	50.35	4.47
Mountain	429,092	14	39.96	32.11	5.65
Pacific	49,039	12	51.03	32.24	1.56
U.S.	2,604,901	17	49.71	37.82	28.13

#### Conservation Reserve Program Enrollment

Signup period	Contracts	Acres	Average rental rate	Average erosion reduction
	Thousand	Million	\$/acre/yr.	Tons/acre/yr.
1. March 1986	9.4	0.75	42.06	26
2. May 1986	21.5	2.77	44.05	27
3. August 1986	34.0	4.70	46.96	25
4. February 1987	88.0	9.48	51.19	19
5. July 1987	43.7	4.44	48.03	17
6. February 1988	42.7	3.38	47.90	18
7. July 1988	30.4	2.60	49.71	17
Total	269.7	28.13	48.50	20



## Food and Marketing

### FOOD PRICE UPDATE

Food prices in 1989, measured by the Consumer Price Index (CPI), are expected to rise 3-5 percent from 1988. In each of the past 2 years, the CPI for food increased 4.1 percent. Increases in 1989 will be about the same as in the last 2 years, and only slightly above the 3.4-percent average annual increase since 1982.

The annual increase in the CPI for all items averaged 3.8 percent since 1982, indicating that food prices dampened inflation through most of the 1980's. Factors that will influence food prices in 1989 are consumer demand, processing and marketing costs, and supplies of food commodities.

### Consumer Demand Steady

Consumer demand for food in 1989 is expected to continue strong, consistent with an expected 3-percent increase in real disposable personal income. In 1988, new jobs were created in record numbers and unemployment fell to its lowest rate in 14 years. Personal income growth was strong last year, and is expected to remain so through 1989. Real growth in personal income bolsters consumer demand for all goods and services, including food. Stronger food demand in 1989 will support higher prices for some foods, particularly meats.

### Processing and Marketing Costs Likely To Rise

The growth in real income is putting pressure on costs of processing and marketing. The food industry competes with other industries for inputs such as labor, packaging, transportation, and energy. Demand for these inputs is high, so some costs are expected to rise.

Ordinarily, processing and marketing costs rise nearly as fast as the overall inflation rate. But in 1988, the cost of processing and marketing foods increased about 5 percent, somewhat more than the general inflation rate. Costs are likely to rise faster than prices again in 1989. Processing and marketing costs account for about 70 percent of food dollars spent in grocery stores.

### Food Supplies Ample

With normal weather, food supplies in 1989 will be more than adequate. Some supplies will be smaller than last year, but no shortages are expected in any major category. Since demand for food changes slowly over time, supply fluctuations have more impact on food prices in the short term.

Beef production is expected to be 3 percent below 1988. Pork production also will be down slightly. In contrast, poultry production is expected to expand nearly 4 percent. As a result, total meat supplies will increase, exceeding last year's record high. With strong consumer demand, meat and poultry prices likely will average 2 to 4 percent above last year.

Fresh vegetable supplies are larger than a year ago. Winter vegetable acreage was 10 percent above 1988, but cold weather slowed production in California during the winter quarter; prices were higher than expected. Assuming weather conditions improve, supplies will return to normal. Supplies likely will be larger than a year earlier during the spring quarter.

Canned fruit and vegetable stocks are smaller than a year ago. Canned vegetable supplies are smaller because of drought-reduced crops last summer. Canned noncitrus fruit supplies are tight because of a smaller pack in 1988 and small carryin stocks. Because of reduced supplies, processed fruit and vegetable

prices are expected to average 5 to 7 percent above 1988.

Cereal and bakery product prices are expected to average 4 to 6 percent above 1988. Smaller supplies of cereal grains resulting from last summer's drought caused retail cereal prices to rise through the second half of the year. Part of the higher average price in 1989 will reflect the smaller supplies and higher prices that appeared late in 1988.

Costs of processing and marketing cereal and bakery products, particularly packaging costs, will add to prices. Consumer demand for cereal products will bid prices higher. Demand for high-fiber cereals, as well as demand for easy-to-prepare breakfast foods, will be particularly strong in 1989. [Ralph Parlett (202) 786-1870]

### Upcoming Releases from the Agricultural Statistics Board

The following list gives the release dates of the major Agricultural Statistics Board reports that will be issued by the time the April *Agricultural Outlook* comes off press.

#### March

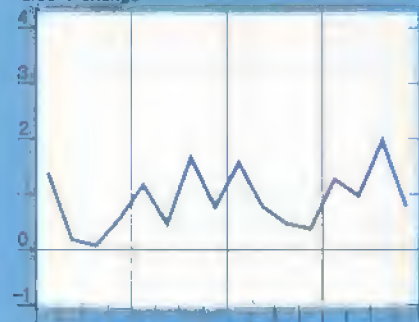
- 3 Egg Products
- Poultry Slaughter
- 6 Dairy Products
- 7 Celery
- 8 Vegetables
- 9 Crop Production
- 13 Livestock Slaughter-Annual
- 14 Turkey Hatchery
- 15 Potato Stocks
- 16 Milk Production
- Cattle on Feed
- 20 Cold Storage-Annual
- 21 Catfish
- 22 Hop Stocks
- Vegetables
- 23 Eggs, Chickens, and Turkeys
- 24 Cold Storage
- Wool and Mohair
- Livestock Slaughter
- 28 Hatchery-Annual
- Peanut Stocks and Processing
- 30 Agricultural Prices
- 31 Prospective Plantings
- Grain Stocks
- Rice Stocks
- Hogs and Pigs



# Food and Marketing Indicators

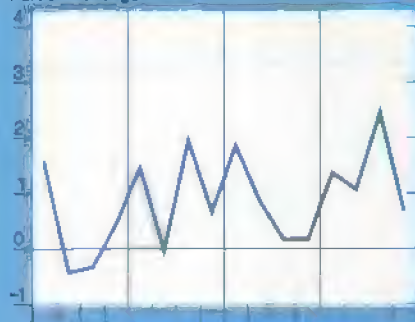
CPI: Total food<sup>o</sup>

Percent change



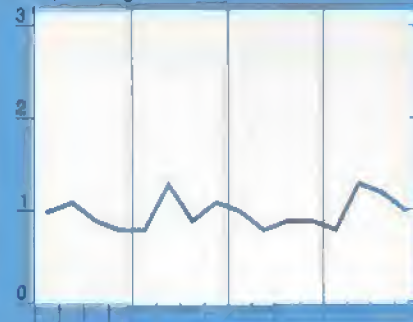
CPI: Food at home<sup>o</sup>

Percent change



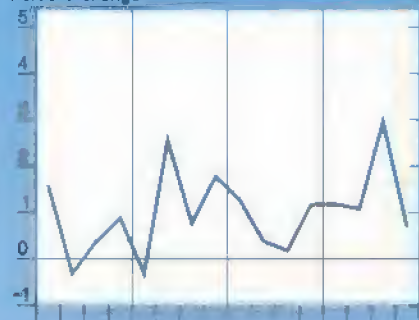
CPI: Food away from home<sup>o</sup>

Percent change



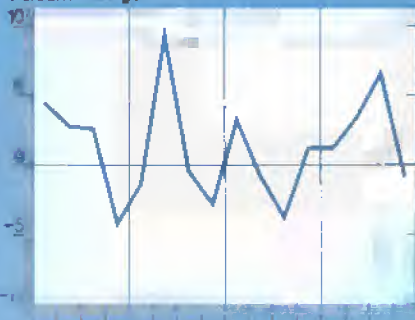
Retail cost of food<sup>1</sup>

Percent change



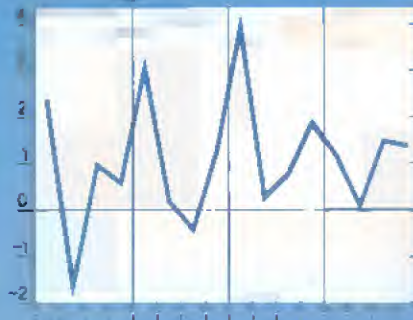
Farm value of food<sup>1</sup>

Percent change



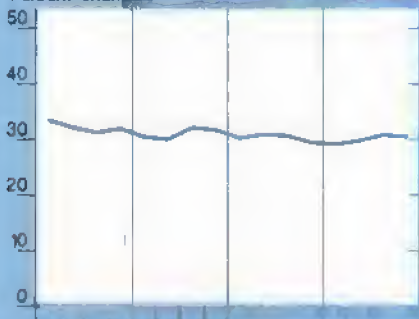
Farm-retail spread<sup>1</sup>

Percent change



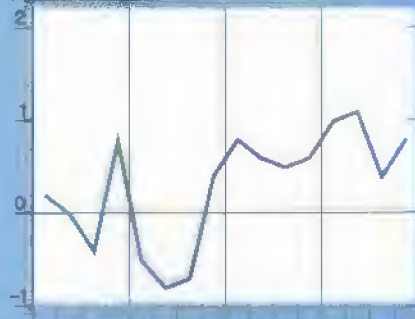
Farm value/retail cost<sup>1</sup>

Percent change



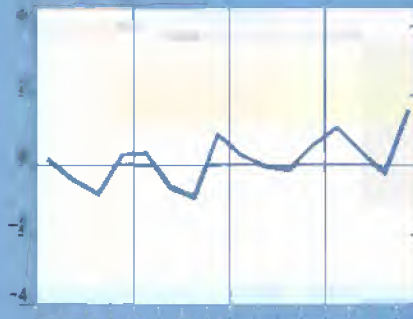
Food marketing cost index<sup>2</sup>

Percent change



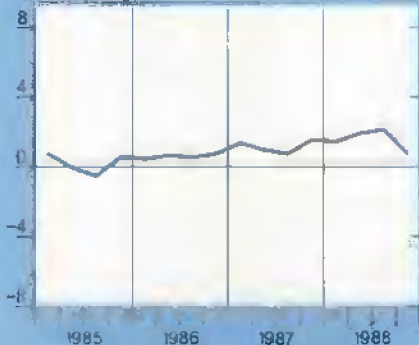
Index of hourly earnings<sup>3,4</sup>

Percent change



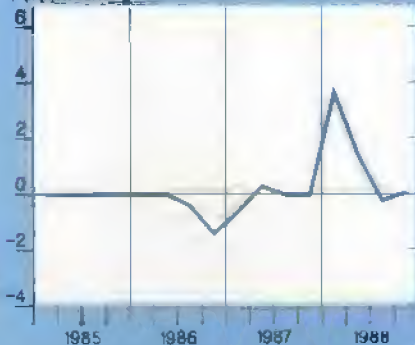
Index of packaging prices<sup>4</sup>

Percent change



Index of rail freight rates<sup>4</sup>

Percent change



Index of energy rates<sup>4</sup>

Percent change



<sup>o</sup>CPI unadjusted <sup>1</sup>Index based on market basket of farm foods <sup>2</sup>Index of changes in labor, packaging, transportation, energy, and other marketing costs.

<sup>3</sup>In food retailing, wholesaling, and processing <sup>4</sup>Component of food marketing cost index.

All series expressed as percentage change from preceding quarter, except for "Farm value/retail cost" chart



## Hybrid Versus Semi-Dwarf Wheats

Hybrid wheats have not yet been able to compete in the United States against semi-dwarf varieties that continue to improve in yield. This could change, however, if hybrid wheat could consistently yield 15-20 percent over semi-dwarf varieties, if its seed price decreases, and if dry or drought conditions do not occur. The European Community is hybrid wheat's largest potential market.

Demand for higher yielding wheats in the 1940's produced two pathways to wheat seed development: a semi-dwarf wheat variety (SDWV) and hybrid wheat (HW). Breeders in the public sector developed SDWV's, while the private sector was the principal developer of HW. Seed from SDWV's can be used for next season's planting, whereas seed from hybrids cannot. Since farmers must purchase HW seed every season, the private sector had a market incentive to develop commercial hybrids.

### *Development of Semi-Dwarfs and Hybrids Sharply Different*

Several events stimulated the desire for higher yielding wheats:

- the introduction of hybrid corn raised hopes for other hybrid crops;
- wheat farmers sought higher yields to offset acreage diversion programs and take advantage of higher prices;
- the release of a short wheat variety, Elgin, in the Pacific Northwest made breeders realize yields could be increased; and

- massive crop losses caused by an outbreak of a stem rust disease in the early 1950's made farmers want a cushion against another epidemic.

The development of SDWV's used a pure-line approach, transferring dwarfing genes into a taller, conventional variety. With more fertilizer, the stalks of the shorter variety can support heavier heads and therefore higher yields, while the taller varieties fall over (lodge).

The development of HW was different. Because wheat has evolved to self-fertilize, breeders had to make genetic alterations to enable cross-fertilization. HW research and development was further complicated by wheat's six chromosome sets, as opposed to corn's two.

It took less time to develop SDWV than HW. Gaines, the first SDWV, was released in 1961. It boosted yields 5-20 percent over taller, conventional varieties. By 1962, farmers in Washington had planted 38.9 percent of their wheat area to Gaines. By 1984, 58.7 percent of all U.S. wheat land was in SDWV.

Research and development for HW began in the early 1950's, but HW did not begin to look commercially successful until 1983, when several of Cargill's Bounty brands did particularly well. In 1985 field trials held in Kansas, Colorado, Nebraska, Oklahoma, Missouri, and Texas, the top HW's from Cargill yielded as much as 16.5 percent over the top conventional variety. Only two firms and one university continue to carry on large HW research and development programs. The high cost, slow progress, and the poor farm economy forced other firms to drop out in the early 1980's.

### *Adoption of Semi-Dwarf Wheat Has Been Steady*

Adoption of SDWV was determined largely by the value of wheat relative to crops competing for the same land, and by when SDWV genes became available for the wheat class widely grown in an area. By 1984, 21 States had over 50 percent of their wheat land committed to SDWV and 11 had over 75 percent. Yields increased from 10 bushels per acre in 1940 to 35 in 1980. Half the gain was attributed to public research in SDWV.

By the early 1990's, most wheat farmers will plant SDWV's if trends continue. However, the appearance of commercial HW threatens SDWV's pace.

### *Winter Hybrids Will Be Adopted First*

HW is available in both the hard red winter (HRW) and hard red spring (HRS) classes. HW varieties of HRW likely would be grown in Kansas, Colorado, and Oklahoma, while HW varieties of HRS would be produced in North Dakota, South Dakota, and Montana.



## 1989/90 Winter Wheat Prospects

Winter wheat seedings for 1989/90 are forecast at 54.5 million acres, about 12 percent above 1988/89. But dry weather and extreme low temperatures are causing concern about yields.

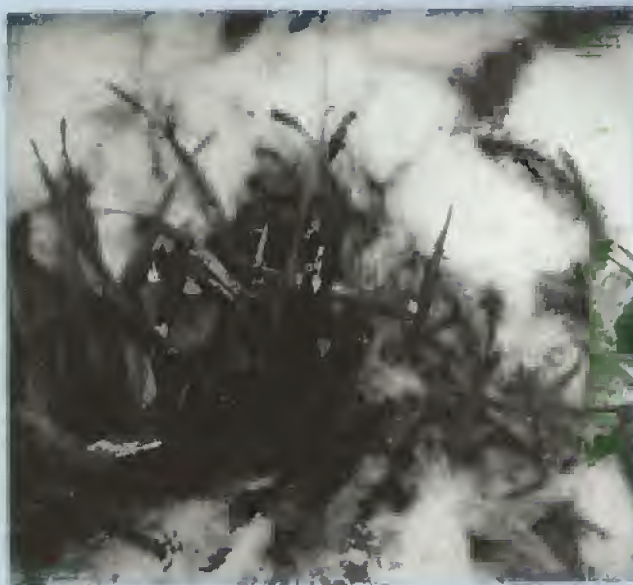
The main reason acres are up is that USDA relaxed set-aside provisions last year when carryover stocks were drawn down. USDA required only 10 percent of acreage to be set aside under the Acreage Reduction Program (ARP), down from 27.5 percent a year ago.

Of the 42 States for which winter wheat seeding data are available, 32 reported expanded acreage. Eight scattered States showed a decline.

Kansas showed the largest gain, about 2.25 million acres, followed by Texas, up about one-half million.

Areas outside the main hard red winter wheat (HRW) areas, including the North Central Plains States, however, showed the largest relative gains. Minnesota's 80-percent gain led the way, followed by Iowa and Wisconsin. North and South Dakota and Montana recorded substantial reductions in winter wheat acres.

Kansas seeded more winter wheat than any other State, 12.4 million acres, and its expansion accounts for about 40 percent of the total acreage increase from last year. Oklahoma (7.3 million acres) and Texas (6.8 million) are also major winter wheat States, but traditionally a higher proportion of their wheat is grazed rather than harvested for grain. Kansas, Oklahoma, and Texas are the States in which



Hybrid wheats yield most consistently with adequate water. Irrigated HRW is concentrated in Oklahoma, Kansas, and the panhandle of Texas. A second potential early adoption area is the non-irrigated portions of Oklahoma (central and eastern), Kansas, and Nebraska. Also, dryland or summer fallow HRW wheat farmers in Montana and South Dakota could switch to HW.

Growers will adopt HRW before HRS because the winter hybrid already is available, while many spring hybrids are still in the testing stage.

hybrid wheat has the best chance of adoption as an alternative to semi-dwarf varieties.

High-yielding soft red winter (SRW) acreage is estimated up 17.7 percent from a year earlier, and white wheat is up 11.5 percent. Both exceeded the 9.7-percent increase in HRW. Growing conditions generally are favorable in the SRW areas, but some white wheat in the Pacific Northwest is short on soil moisture.

### *Weather Remains a Concern for The Winter Wheat Crop*

While the winter wheat area is up sharply from last year under the relaxed program regulations, it is smaller than many had expected. One reason is the dry weather at sowing

time. A persistent lack of precipitation in most of the HRW States continued to be worrisome well into January. Although rainfall in the drought-affected areas is above last summer's levels, it is far below normal for the winter period.

The major areas affected include portions of Nebraska, Colorado, Texas, and Kansas. However, some of these areas are irrigated. A lack of snow cover in much of the HRW area may have exacerbated the situation, denying the crop protection from the severe winter temperatures that hit in early February.

The drought in 1988 had little effect on winter wheat, but it cut spring wheat yields by about half. This year's weather and insect problems could lower winter wheat yields. However, wheat is mostly dormant during the winter; spring and early summer weather usually has the biggest effect on yields. [Jim Cole (202) 786-1840]

### *Yield and Cost Crucial To HW Acceptance*

So far, little hybrid wheat is commercially grown. In 1984, less than one-tenth of 1 percent of all wheat land (100,000 acres) was planted with HW seed. The share rose only slightly in 1988, after dropping in 1986 and 1987. Lower wheat prices and a poorer farm economy in 1986 may have reduced HW acreage.

Relative yield and cost of HW are crucial to its acceptance. In 1987 field trials, the top HW's averaged 8 percent less to 6.25 percent more than the top SDWV and other non-hybrid conventional varieties, down from 1985.

**Top Commercial Hybrid Wheats Outperformed Conventional Wheat Varieties in 1985 State Trials**

State	Yield		Difference
	Top hybrid wheat	Top conventional wheat	
	Bushels per acre		
Kansas	68.0	60.8	13.3
E. Colorado (irrigated)	100.5	94.2	6.7
Central NE Colorado (dryland)	54.2	54.2	0.0
Nebraska	64.0	57.0	12.3
Oklahoma	66.7	60.4	10.4
Missouri	63.0	56.0	12.5
Texas & Oklahoma High Plains (irrigated)	89.0	91.8	-3.1
Texas & Oklahoma High Plains (dryland)	59.2	50.8	16.5
Texas High Plains (forage, lbs. per acre)	4,531.0	4,453.0	1.8

Source: Cargill, Inc., *Bounty Hybrid Wheat 1986-87 Management Guide*, Minneapolis, 1986.

**Yield Advantage Required by Commercial Hybrids for Farmers To Break Even**

Market price	Yield 1/			
	35 bu./acre		50 bu./acre	
	Absolute gain	Percent gain	Absolute gain	Percent gain
\$2	9.5	27.1	9.5	19.0
\$3	6.3	18.0	6.3	12.6

1/ Calculations are estimated using the profit equation:

$$\text{Market price} \times [\text{needed yield} - \text{conventional yield}] - [\text{hybrid seed cost} - \text{conventional seed cost}] = 0$$

Where:

Market price of wheat is \$2 or \$3.  
 Needed yield is the minimum that hybrid wheat must yield to be competitive with conventional varieties.  
 Conventional yield is 35 bu./acre or 50 bu./acre.  
 Hybrid seed cost is \$27 for 60 pounds (\$22.50 for 50-lb. bag).  
 Conventional seed cost is \$8 for 60 pounds.

Source: Johnston, R.A., "Hybrid Wheat Economics, Looking Better All the Time", *Crops and Soils*, vol. 37, 1985, pp.15-18.

Under adverse weather, such as drought, HW's yield advantage drops relative to SDWV's. Some wheat breeders think the yield advantage for commercial HW must be increased to 20 percent to compensate for its poorer performance under adverse weather, which has occurred about once every 3 years, on average.

The relatively high cost of HW seed works against its adoption. Most fields are seeded at a rate of 60 pounds per acre. Until 1987, 60 pounds of hybrid wheat seed cost approximately \$27.00, compared with \$8.00 for 60 pounds of SDWV.

Some wheat breeders think farmers seed too heavily, but if HW is seeded at a lower rate to cut costs, SDWV could be also. There are no other differences in input use between the two types. At pre-1987 seed costs, farmers would need yields 12.6-27 percent over SDWV and other non-hybrid varieties to prefer HW.

To increase 1987 sales, two firms cut the price of HW seed below its production cost. A 50-pound bag of HW seed sold for \$13-\$18, depending on the variety and perceived market. At an average of \$15.50 per bag, a farmer would spend \$18.60 for 60 pounds of HW seed per acre. At these more favorable prices, farmers would need yields 7-15 percent over SDWV and other non-hybrid varieties to prefer HW.

**Removing Barriers To HW Diffusion**

Wheat breeders indicated in a 1985 survey that HW yields could be increased and production costs decreased. They expected farm yields to rise, because of HW, from 35 bushels per acre to 40.3 by 1990 and 46.8 by 2000. The breeders expected farmers to plant 7.7 percent of total wheat land with HW seed in 1990 and 29.5 percent by 2000.

With improved yields and lower costs, HW could take off rapidly in the potential early acceptance areas noted earlier.

Other States would follow depending on when HW technology is available and on the value of the region's wheat crop. The last States to use SDWV's were about 15-20 years behind the early adopters; HW could have a similar time lag. However, as wheat farms become fewer and larger, HW's acceptance may be more rapid.

If HW yields are not improved or its price reduced, farmers likely will continue to adopt SDWV's at the current rate. The continued improvement of SDWV's only widens the gap over HW. SDWV adoption could plateau around 1994.

Commercial HW's largest potential market is the European Community, where average wheat yields are two to three times those in the United States. Yields could exceed 80 bushels per acre, up from an average of 70 bushels per acre for SDWV and other non-hybrid varieties, a 15-percent yield advantage. This gain, along with the EC's high wheat market prices, good moisture conditions, and longer growing season, provides a favorable market for HW seed. [Mary Knudson (202) 786-1459]





## The U.S.-EC Hormone Dispute

A European Community (EC) ban on imports of meat and meat products from animals treated with growth hormones went into effect on January 1, 1989. The EC says the ban was to protect the health and preferences of its consumers, and believes the ban is consistent with international rules because it applies to all EC members and to all countries that export meat to them. The U.S. maintains that the ban is a non-tariff trade barrier constituting an unfair trade practice under the GATT because it has no scientific basis, and that it was prompted by beef surpluses in the EC.

Fundamental differences between the U.S. and the EC in beef production, consumer organizations, and regulatory systems have helped to create and intensify the dispute. Technical problems of certification and a recent history of U.S./EC conflicts have precluded an easy solution.

Meetings between U.S. and EC officials on February 17-18 in Washington, D.C., resulted in a 75-day truce in the dispute's escalation. A task force of U.S. and EC negotiators will attempt to work out technical details of how to permit U.S. beef exports to the EC while the ban remains in place. Further meetings on this and other issues will take place between U.S. and EC officials in Brussels on March 10-11. In addition, there will be a public conference on the hormone issue sponsored by the Club de Brussels in Brussels on March 17.

A chronology of the hormone ban controversy:

- 1980--A scandal in Italy involving the use of diethylstilbestrol (DES), a carcinogenic growth hormone already banned in the U.S., prompted the EC to ban all growth hormones. The ban was retained for DES, but other hormones were subsequently approved in all EC member

states except Italy, West Germany, Belgium, and the Netherlands.

- 1985--An EC parliamentary committee demanded that the EC Commission ban all production and imports of meat treated with non-therapeutic growth hormones. The EC Commission agreed and set the implementation date for January 1, 1988.
- 1987--The United States filed a GATT case under the Standards Code in January. The EC blocked establishment of a technical experts panel in July. In December, importing countries were granted a 1-year delay until January 1, 1989, while EC producers were granted a 3-month delay until April 1, 1988.
- 1988--On January 1, the U.S. announced a retaliation list of commodities that would go into effect upon application of the ban, and would be equal to the value of affected products. The EC initially responded with a proposed counter-retaliation valued at \$361 million. In December, the EC Agricultural Council confirmed the ban but dropped meat destined for pet food from the list, and approved shipments of pork and horsemeat until May 31, 1989, pending certification of the pork production system.
- 1989--The EC ban and the U.S. retaliation went into effect on January 1, although a grace period through January 31 was granted for shipments made prior to January 1. On January 5, the EC Committee of Permanent Representatives recommended a counter-retaliatory list equal in value to the U.S. list, and referred the issue to the EC Foreign Affairs Council, which met on January 23 and adopted but did not implement the counter-retaliation. The EC has asked the GATT to rule on the legality of the U.S. retaliation.

In addition, a series of incidents in the EC involving illegal hormone use received wide publicity in the summer of 1988. The USDA's Food Safety and Inspection Service (FSIS), partly in response to the alleged widespread use of illegal hormones in the EC, and as a routine function of a U.S. regulatory agency charged with insuring the safety of U.S. imports, sent a letter to the EC requesting further information to verify that residue testing procedures in EC meat-exporting countries were equivalent to U.S. standards.

The letter indicated that proof of adequate testing procedures would have to be received by March 31, or FSIS may begin the process necessary to remove the countries from the list of those eligible to export meat and meat products to the U.S.

The U.S.-EC hormone dispute has come at an inopportune time for the following reasons:

- Both the U.S. and the EC are changing administrations. The U.S. has a new administration with personnel changes at the Cabinet level. The EC has just replaced

or reshuffled the 17 EC Commissioners, including the Farm Commissioner.

- The midterm review of the GATT negotiations in December at Montreal resulted in a continued U.S.-EC stalemate.
- The EC is preparing for Project 1992, which will require many standards and regulations to be harmonized across all EC member countries. Many trade analysts fear that the hormone ban may be an early indication that U.S. agricultural products might have less access to the EC market under the project.
- The U.S. and the EC have engaged in lengthy negotiations over the EC's Third Country Meat Directive, which threatened U.S. meat exports to the EC irrespective of the hormone issue.

### **Ban Could Cost the U.S. \$115 Million in Exports**

According to USDA estimates, the ban will cause the U.S. to lose about \$115 million of an estimated \$230 million in meat and meat product exports to the EC. Total agricultural exports to the EC amounted to \$7.5 billion in 1988. USDA says it cannot comply with the EC certification program because testing cannot distinguish between naturally occurring hormone residues and implanted hormone residues.

Roughly 90 percent of the U.S. losses would be absorbed by exporters of beef offals such as tongues, kidneys, livers, and hearts. It would be impractical and prohibitively costly for the U.S. to certify that beef offals came from animals not treated with hormones. It requires hundreds of thousands of tons of carcasses to provide the offals exported to the EC, and an estimated 70 to 80 percent of the U.S. beef herd is treated with hormones.

Other beef exporters to the EC such as Australia and New Zealand are able to comply with EC certification requirements because less than 25 percent of their beef herds are treated with hormones, and that portion not treated is easy to identify geographically.

The U.S. retaliation on selected EC exports to the U.S. originally amounted to about \$125 million in the form of 100-percent ad valorem tariffs. The value since has been scaled back to around \$100 million, because the EC excluded from the ban products destined for pet foods. The countries most affected by the U.S. retaliation are Italy (preserved tomatoes and wine coolers) and West Germany (coffee extracts and fruit juices).

An EC committee originally recommended a counter-retaliation against \$361 million of U.S. products, mostly from California, but has since scaled this back to around \$100 million, in line with the U.S. reduction. The counter-retaliation was adopted but not implemented by the EC Council of

Foreign Affairs, which met on January 23. The majority of the counter-retaliation would be directed at in-shell walnuts, a popular Christmas item in the EC.

### **Hormonal Substances In Question Have Been Approved by Scientists**

Hormonal substances have been found safe when used under proper animal husbandry practices, and have been approved by the U.S. Food and Drug Administration (FDA), and by the Codex Alimentarius Commission through a Joint Expert Committee of the Food and Agricultural Organization and the World Health Organization.

Also, a 22-member scientific working group appointed by the EC Commission, headed by Dr. Eric Lamming, came to the same conclusion about the safety of hormones when properly administered. But the EC Commission disbanded the group before it could submit the results. The scientists themselves, at their own expense, published their findings.

The main benefits of hormonal implants include improved weight gain, leaner meat, more efficient feeding, and enhanced nutrient utilization. In the U.S., normally, a capsule holding a miniscule amount of the hormone is implanted at the base of the ear when the animal enters the feedlot. The hormone capsule remains effective for about 120 days.

The animal normally gains weight faster and has less fat, making the procedure commercially attractive. Ironically, hormone levels in meat from U.S. steers treated with hormone implants range from two to five times lower than meat from EC bulls, which is commonly eaten in Europe.

The hormones approved for use in the U.S. are three natural ones—estradiol, testosterone, and progesterone—as well as two synthetic ones—zeranol and trenbolone acetate. The three natural hormones cannot be detected in the meat when

Meat Is a Small Share of U.S.-EC Farm Trade

	Fiscal years				
	1984	1985	1986	1987	1988
	\$ million				
U.S. agricultural exports to the EC-12 1/2					
Meat & products	140.3	133.6	151.3	212.6	230.2
Beef & veal	5.2	4.1	6.7	27.3	34.8
Horsemeat	38.7	30.8	37.8	64.8	85.3
Variety meats	89.0	89.3	103.2	115.7	107.0
Pork	6.5	8.7	2.9	3.7	2.2
Total agricultural	8,650.1	6,667.7	6,431.8	6,787.5	7,513.2
EC agricultural exports to the U.S.					
Meat & products	337	417	382	446	384
Total agricultural	3,436	3,751	4,115	4,209	4,121
Net U.S. agricultural	5,214.1	2,916.7	2,316.8	2,578.5	3,392.2

1/1/2 Excludes Portugal.



properly administered. The synthetic hormones can be detected, although testing is expensive. Ironically, the EC ban does not extend to therapeutic uses of hormone compounds, which are injected in large doses, easily detected, and considered hazardous in such doses if the meat is consumed. The U.S. allows implants of these compounds, but not injections.

### ***U.S. Maintains Ban Is Illegal, Unscientific***

The U.S. maintains that the ban is an illegal non-tariff barrier according to the GATT Standards Code because it is not based on scientific grounds but is being used to deny entry to imports that could otherwise compete in the EC.

The U.S. asserts that by legalizing the five hormones considered safe in the U.S., the EC could prevent an alleged health hazard presented by the widespread use of black-market hormones that surfaced after the domestic ban went into effect in April 1988.

The U.S. alleged that the EC is using the ban to help reduce last year's 700,000-ton beef surplus. The surplus resulted largely from a liberal EC intervention system and a stringent dairy quota that led to greater-than-normal slaughter. The dairy quota most likely will continue to contribute to beef surpluses.

### ***The EC Sees the Ban As a Needed Health Measure***

The EC sees its ban on imports of hormone-treated beef as a legitimate health measure, and defensible under GATT rules of national and consumer sovereignty. The EC points out that the ban is non-discriminatory because it also applies domestically. It adds that illegal use of hormones in the EC is an internal matter.

Over the past 30 years, EC consumers have had some bad experiences with supposedly safe drugs and with standards that had been approved by scientists. The thalidomide tragedy of the 1950's, the DES scare in 1980 following about 20 years of approved use, and the 1985 incident at Chernobyl which contaminated some European meat, have had a cumulative psychological effect on many EC consumers. Use of illegal steroids at last summer's Olympic Games has been cited as additional psychological impetus for the ban.

According to European consumer groups such as the BUEC (Office of the European Consumer Union) in Brussels, many consumers want "risk-free" food in which safety is not compromised by processing, additives, or preparation. EC consumer groups appear unwilling to accept U.S. recommendations on the safety of hormones. The groups also point out that since there is already a surplus of EC beef, there is no need for beef treated with growth hormones.

The EC Parliament appointed a Commission of Enquiry to look into meat quality. At subsequent hearings EC scientists have been critical of the ban, although some Commission

members expressed doubts about whether hormones are being used safely in the EC.

Although results of the hearings will not be announced until early spring, there are preliminary indications that the EC Commission of Enquiry is likely to report some doubts about how hormones are used, and recommend the ban be continued. The Commission also is likely to recommend enforcing the domestic legislation making the testing program effective.

### ***U.S. and EC Political, Production Systems Differ***

The U.S. has a Federal system that regulates food (FSIS) and drug (FDA) safety. The EC has 12 sovereign nations with differing political, regulatory, and consumer institutions. It is relatively easy for the U.S. to inform and educate its consumers because of a common language and national media. The EC is faced with cultural, language, and national boundaries that inhibit information flows. This helps explain the acceptance by U.S. consumers of product safety certification, while some EC consumers may be more demanding or skeptical of regulatory systems.

Livestock producers in the EC traditionally have used hormones to improve the grade of meat supplied from the dairy herd. About two-thirds of the EC's beef supply comes from the dairy herd. In contrast, the vast majority of the U.S. beef supply comes from animals finished in feedlots and slaughtered at 15-18 months of age.

There is a perception among some EC consumers that meat derived from animals treated with hormones is relatively tasteless, retains more water, and shrinks when cooked compared to meat from traditionally reared animals. This may be due to EC farmers' attempts to improve the grade of older dairy cows though the use of growth hormones.

EC consumer groups have presented their concerns forcefully to their governments and to the EC Parliament. Political parties such as the Greens have surfaced in many EC countries, with environment and consumer safety as their principal issues. The Greens do not have a wide political base, but they enjoy public support on safety and environmental issues, including the hormone issue in many EC countries.

West German consumers are ardent supporters of the hormone ban; they also are outspoken on environmental issues, and the Green Party has a lot of its power there. Such issues likely will continue to surface in the EC, because much of the agricultural technology under investigation runs counter to "natural" production methods.

### ***Prospects for Resolution***

The issue is evolving into a political/technical dispute over inspection systems that could create negative fallout from consumer groups. One problem is the difficulty of determining whether EC consumers are in favor of the ban. Veal consumption in West Germany collapsed overnight after reports

of illegal hormone use in that country, indicating that German consumers are sensitive to the issue.

Both sides would suffer large trade losses if the dispute gets out of hand. But a retaliatory spiral is not likely because of domestic spillover on both sides of the Atlantic, the upcoming GATT meetings in April, and future prospects for the EC's Project 1992. The resolution could be technical, involving certification, testing, or labeling.

It may take some time to reach an agreement because the EC must negotiate among 12 countries, and because of changes in the EC and U.S. administrations. Nevertheless, both sides have shown willingness to avoid further damage over a relatively small amount of trade. Much larger goals could be compromised, such as an agreement in the GATT multi-lateral trade negotiations and EC harmonization of standards and regulations and market unification under Project 1992.  
(David R. Kelch (202) 786-1616)

## Statistical Indicators

### Summary Data

Table 1.—Key Statistical Indicators of the Food & Fiber Sector

	1988					1989				
	I	II	III	IV	Annual	I F	II F	III F	Annual F	
Prices received by farmers (1977=100)	130	134	143	144	138	134	--	--	--	139
Livestock & products	148	149	151	152	150	149	--	--	--	150
Crops	112	118	135	135	125	135	--	--	--	130
Prices paid by farmers, (1977=100)										
Production items	152	155	159	162	157	--	--	--	--	171
Commodities & services, interest, taxes, & wages	165	168	172	173	170	--	--	--	--	180
Cash receipts (\$ bil.) 1/										
Livestock (\$ bil.)	151	164	157	146	155	160	--	--	--	--
Crops (\$ bil.)	78	76	85	79	80	79	--	--	--	--
	67	80	76	57	69	75	--	--	--	--
Market basket (1982-84=100)										
Retail cost	114	115	118	118	116	--	--	--	--	--
Farm value	96	99	104	100	100	--	--	--	--	--
Spread	123	123	126	128	124	--	--	--	--	--
Farm value/retail cost (%)	30	30	30	30	30	--	--	--	--	--
Retail prices (1982-84=100)										
Food	116	117	119	120	118	121	123	--	--	--
At home	114	115	118	119	117	120	120	--	--	--
Away from home	120	121	123	123	122	125	127	--	--	--
Agricultural exports (\$ bil.) 2/	9.4	8.7	8.7	9.5	35.3	10.5	10.0	6.5	36.5	
Agricultural imports (\$ bil.) 2/	5.7	5.0	5.1	5.3	21.0	5.5	5.0	5.2	21.0	
Commercial production										
Red meat (mil. lb.)	9,665	9,682	10,138	10,264	39,749	9,785	9,520	9,881	38,920	
Poultry (mil. lb.)	4,986	5,209	5,212	5,015	20,422	5,090	5,395	5,530	21,450	
Eggs (mil. doz.)	1,464	1,428	1,421	1,446	5,771	1,430	1,385	1,400	5,645	
Milk (bil. lb.)	36.1	37.8	36.1	35.3	145.3	35.9	38.0	36.3	145.8	
Consumption, per capita										
Red meat and poultry (lb.)	53.7	54.3	55.0	55.9	218.9	54.4	53.7	55.3	219.8	
Corn beginning stocks (mil. bu.) 3/	9,768.5	7,635.2	5,835.5	4,259.1	4,881.7	7,070.9	--	--	4,259.1	
Corn use (mil. bu.) 3/	2,134.2	1,801.3	1,576.9	2,188.5	7,698.7	--	--	--	--	
Prices 4/										
Choice steers--Omaha (\$/cwt)	68.28	72.81	66.92	70.14	69.54	71-75	72-78	68-74	70-76	
Barrows & gilts--7 mths. (\$/cwt)	44.74	45.90	44.24	38.66	43.39	40-44	44-50	42-48	42-48	
Broilers--12-city (cts./lb.)	45.4	55.6	66.1	57.9	56.3	56-60	54-60	53-59	53-59	
Eggs--NY Gr. A large (cts./doz.)	55.0	53.3	72.9	67.3	62.1	67-71	61-67	69-75	67-73	
Milk--all at plant (\$/cwt)	12.23	11.43	11.87	13.30	12.21	12.25-12.95	11.65-12.35	11.65-12.45	11.95-12.75	
Wheat--Kansas City HRW (\$/bu.)	3.20	3.38	3.86	4.11	3.64	--	--	--	--	
Corn--Chicago (\$/bu.)	1.95	2.29	2.84	2.75	2.46	--	--	--	--	
Soybeans--Chicago (\$/bu.)	6.14	7.01	8.38	7.91	7.36	--	--	--	--	
Cotton--AVG. spot mkt. (cts./lb.)	59.1	61.5	58.5	52.3	57.8	--	--	--	--	

	1981	1982	1983	1984	1985	1986	1987	1988	1989 F
Gross cash income (\$ bil.)	146.0	150.6	150.4	155.2	156.8	152.0	160.4	169	165-169
Gross cash expenses (\$ bil.)	113.2	112.8	113.5	116.6	110.2	100.6	103.3	111	115-118
Net cash income (\$ bil.)	32.8	37.8	36.9	38.7	46.6	51.4	57.1	57	48-52
Net farm income (\$ bil.)	26.9	23.5	12.7	32.2	32.3	37.5	46.3	39	44-48
Farm real estate values (1977=100) 5/	158	157	148	146	128	112	103	106	--

1/ Quarterly data seasonally adjusted at annual rates. 2/ Annual data based on Oct.-Sept. fiscal years ending with year indicated. 3/ Dec.-Feb. first quarter; Mar.-May second quarter; June-Aug. third quarter; Sept.-Nov. fourth quarter; Sept.-Aug. annual. Use includes exports & domestic disappearance. 4/ Simple averages. 5/ Nominal values as of February 1. F = forecast. -- = not available.



# U.S. and Foreign Economic Data

Table 2.—U.S. Gross National Product & Related Data

	Annual			1987	1988			
	1986	1987	1988 P	IV	I	II	III	IV P
\$ billion (quarterly data seasonally adjusted at annual rates)								
Gross national product	4,240.3	4,526.7	4,861.8	4,662.8	4,724.5	4,823.8	4,909.0	4,989.9
Personal consumption expenditures	2,807.5	3,012.1	3,226.0	3,076.3	3,128.1	3,194.6	3,261.2	3,320.1
Durable goods	406.5	421.9	449.9	422.0	437.8	449.8	452.9	459.3
Nondurable goods	943.6	997.9	1,047.2	1,012.4	1,016.2	1,036.6	1,060.8	1,075.2
Clothing & shoes	167.0	178.2	186.3	181.2	180.5	183.2	188.4	193.0
Food & beverages	501.0	526.4	551.6	530.9	535.9	546.3	558.9	565.5
Services	1,457.3	1,592.3	1,728.9	1,641.9	1,674.1	1,708.2	1,747.5	1,785.6
Gross private domestic investment	665.9	712.9	765.5	764.9	763.4	758.1	772.5	767.9
Fixed investment	650.4	673.7	717.4	692.9	698.1	714.4	722.8	734.3
Change in business inventories	15.5	39.2	48.1	72.0	65.3	43.7	49.7	33.7
Net exports of goods & services	-104.4	-123.0	-93.2	-125.7	-112.1	-90.4	-80.0	-90.3
Government purchases of goods & services	871.2	924.7	963.6	947.3	945.2	961.6	955.3	992.2
1982 \$ billion (quarterly data seasonally adjusted at annual rates)								
Gross national product	3,721.7	3,847.0	3,995.0	3,923.0	3,956.1	3,985.2	4,009.4	4,029.2
Personal consumption expenditures	2,455.2	2,521.0	2,591.1	2,531.7	2,559.8	2,579.0	2,603.8	2,621.9
Durable goods	385.0	390.9	408.6	387.6	401.1	410.6	410.4	421.5
Nondurable goods	879.5	890.5	899.9	890.5	892.7	893.6	904.5	908.7
Clothing & shoes	157.6	160.5	160.9	160.3	159.6	156.3	164.2	163.7
Food & beverages	448.0	450.4	453.4	449.2	451.4	453.2	453.8	455.3
Services	1,190.7	1,239.5	1,282.6	1,253.6	1,265.9	1,274.8	1,288.9	1,300.7
Gross private domestic investment	643.5	674.8	721.8	724.7	728.9	715.1	726.1	717.1
Fixed investment	628.1	640.4	679.3	657.6	662.9	679.7	686.6	687.9
Change in business inventories	15.4	34.4	42.5	67.1	66.0	35.3	39.5	29.2
Net exports of goods & services	-137.5	-128.9	-99.1	-126.0	-109.0	-92.6	-93.9	-100.7
Government purchases of goods & services	760.5	780.2	781.2	792.6	776.4	783.8	773.5	790.9
GNP implicit price deflator (% change)	2.7	3.3	3.4	2.4	1.7	5.5	4.7	4.7
Disposable personal income (\$ bil.)	3,019.6	3,209.7	3,472.9	3,315.8	3,375.6	3,421.5	3,507.5	3,587.1
Disposable per. income (1982 \$ bil.)	2,640.9	2,686.3	2,789.4	2,728.9	2,762.3	2,762.2	2,800.4	2,832.8
Per capita disposable per. income (\$)	12,496	13,157	14,107	13,543	13,760	13,919	14,231	14,515
Per capita dis. per. income (1982 \$)	10,929	11,012	11,331	11,145	11,260	11,237	11,362	11,463
U.S. population, total, incl. military abroad (mil.)	241.6	243.9	246.2	244.8	245.3	245.8	246.5	246.9
Civilian population (mil.)	239.4	241.7	243.9	242.6	243.1	243.6	244.2	244.7
	Annual			1987	1988			
	1986	1987	1988 P	Dec	Sept	Oct	Nov	Dec P
Monthly data seasonally adjusted								
Industrial production (1977=100)	125.1	129.8	137.2	133.9	138.6	139.3	139.8	140.2
Leading economic indicators (1967=100)	179.3	189.5	192.5	190.8	192.7	193.7	193.4	194.6
Civilian employment (mil. persons)	109.6	112.4	115.0	113.7	115.4	115.6	115.9	116.0
Civilian unemployment rate (%)	7.0	6.2	5.5	5.8	5.4	5.3	5.4	5.3
Personal income (\$ bil. annual rate)	3,531.1	3,780.0	4,063.2	3,939.0	4,114.7	4,178.2	4,170.0	4,207.1
Money stock-M2 (daily avg.) (\$ bil.) 1/	2,807.7	2,909.5	3,073.3	2,909.5	3,035.1	3,042.3	3,060.0	3,073.3
Three-month Treasury bill rate (%)	5.98	5.82	6.69	5.80	7.23	7.34	7.68	8.09
AAA corporate bond yield (Moody's) (%)	9.02	9.38	9.71	10.11	9.82	9.51	9.45	9.57
Housing starts (1,000) 2/	1,805	1,621	1,487	1,399	1,467	1,533	1,558	1,524
Auto sales at retail, total (mil.)	11.4	10.3	10.6	10.8	10.6	9.8	10.2	11.5
Business inventory/sales ratio	1.55	1.51	--	1.52	1.51	1.50	1.50	--
Sales of all retail stores (\$ bil.)	121.2	125.5	134.4	128.5	134.4	136.6	137.8 P	138.0
Nondurable goods stores (\$ bil.)	73.9	76.9	83.6	80.5	84.8	85.4	85.8 P	85.7
Food stores (\$ bil.)	24.6	25.3	27.6	26.4	28.1	28.1	28.2 P	28.0
Eating & drinking places (\$ bil.)	12.1	12.7	13.1	12.7	13.4	13.5	13.7 P	13.8
Apparel & accessory stores (\$ bil.)	6.7	7.1	7.0	6.7	7.1	7.2	7.1 P	7.1

1/ Annual data as of December of the year listed. 2/ Private, including farm. P = Preliminary. R = revised. -- = not available.

Information contact: James Malley (202) 786-1782.

Table 3.—Foreign Economic Growth, Inflation, &amp; Export Earnings

	Average 1975-79	1980	1981	1982	1983	1984	1985	1986	1987	1988 P	1989 F	1990 F
Annual percent change												
Total foreign												
Real GNP	3.7	2.6	1.6	1.7	2.0	3.2	3.0	2.7	3.0	3.6	3.1	3.4
CPI	14.0	16.9	15.6	14.4	18.4	22.5	21.6	11.5	16.2	32.0	46.6	62.9
Export earnings	14.6	22.2	-2.7	-7.0	-2.6	5.6	1.6	12.0	18.8	15.9	8.0	6.2
Developed less U.S.												
Real GNP	3.1	2.4	1.4	1.1	1.9	3.4	3.3	2.4	3.1	3.7	3.1	2.9
CPI	9.4	10.9	9.6	8.0	6.0	5.1	4.7	2.8	2.6	2.9	3.5	2.9
Export earnings	14.9	17.0	-3.3	-4.3	-0.5	6.3	4.6	19.4	17.5	8.9	11.0	9.1
Centrally planned												
Real GNP	3.5	1.5	2.1	2.7	3.4	3.7	2.9	3.9	2.8	3.8	3.6	4.3
Export earnings	16.1	16.5	3.4	6.0	8.2	1.5	-5.1	7.3	6.7	6.5	6.9	6.9
Latin America												
Real GNP	5.1	5.3	0.7	-0.5	-2.7	3.3	3.6	3.7	2.3	0.1	1.9	3.8
CPI	53.7	61.3	64.9	72.6	126.2	174.1	179.4	86.1	136.8	297.8	449.1	631.3
Export earnings	12.8	30.1	5.3	-10.0	-0.8	6.7	-7.4	-14.3	8.8	21.1	1.4	1.0
Africa & Middle East												
Real GNP	6.4	1.3	0.0	1.4	0.1	1.1	0.0	-1.2	1.8	3.2	0.9	3.5
CPI	16.4	24.6	17.3	12.9	16.7	19.4	11.2	11.7	13.6	17.7	18.0	15.4
Export earnings	13.2	37.9	-9.2	-19.7	-17.5	-7.0	-6.4	-14.4	14.6	4.0	4.3	4.8
Asia												
Real GNP	6.8	6.3	6.6	3.6	6.6	5.4	4.0	5.8	5.9	8.1	5.7	5.3
CPI	8.4	16.4	14.1	7.3	7.7	8.5	5.2	4.5	5.4	7.1	7.4	7.6
Export earnings	18.6	27.8	6.8	-0.3	3.4	13.7	-1.2	5.9	28.2	25.8	14.3	9.5

P = preliminary. F = forecast.

Information contact: Timothy Baxter (202) 786-1706.

## Farm Prices

Table 4.—Indexes of Prices Received &amp; Paid by Farmers, U.S. Average

	Annual			1988							1989
	1986	1987	1988 P	Jan	Aug	Sept	Oct	Nov	Dec R	Jan P	
	1977=100										
Prices received											
All farm products	123	127	138	131	144	144	143	144	145	147	
All crops	107	106	125	114	136	135	133	136	136	137	
Food grains	109	103	138	117	147	151	154	156	157	162	
Feed grains & hay	98	85	120	93	138	137	136	133	134	136	
Feed grains	96	81	117	90	137	135	133	130	130	131	
Cotton	91	98	95	102	87	86	90	93	91	90	
Tobacco	138	129	132	128	129	140	143	145	145	144	
Oil-bearing crops	77	79	107	87	119	119	114	112	113	113	
Fruit, all	170	182	181	154	182	187	189	194	192	179	
Fresh market 1/	178	193	194	163	197	201	204	208	207	191	
Commercial vegetables	130	144	142	208	154	145	129	146	146	158	
Fresh market	123	147	147	225	149	140	123	144	147	162	
Potatoes & dry beans	114	126	124	92	152	127	126	154	158	160	
Livestock & products	138	146	150	147	152	153	152	151	154	157	
Meat animals	145	163	168	166	168	167	165	163	166	172	
Dairy products	129	129	126	129	122	128	134	138	139	138	
Poultry & eggs	128	107	118	101	137	139	132	129	126	129	
Prices paid											
Commodities & services,	159	161	170	165	--	--	173	--	--	175	
interest, taxes, & wage rates	147	147	157	152	--	--	162	--	--	163	
Production items	108	103	128	112	--	--	141	--	--	141	
Feed	153	179	191	193	--	--	196	--	--	202	
Feeder livestock	148	148	150	149	--	--	150	--	--	150	
Seed	124	118	130	121	--	--	134	--	--	134	
Fertilizer	127	124	126	123	--	--	128	--	--	128	
Agricultural chemicals	162	161	166	164	--	--	165	--	--	166	
Fuels & energy	144	144	148	144	--	--	152	--	--	153	
Farm & motor supplies	198	208	215	213	--	--	215	--	--	216	
Autos & trucks	174	174	181	176	--	--	188	--	--	188	
Tractors & self-propelled machinery	182	185	198	191	--	--	203	--	--	203	
Other machinery	136	137	138	137	--	--	139	--	--	139	
Building & fencing	145	146	147	147	--	--	147	--	--	151	
Farm services & cash rent	211	190	186	186	--	--	186	--	--	190	
Interest payable per acre on farm real estate debt	138	139	142	142	--	--	142	--	--	144	
Taxes payable per acre on farm real estate	160	166	172	162	--	--	171	--	--	171	
Wage rates (seasonally adjusted)	150	151	161	155	--	--	163	--	--	165	
Production items, interest, taxes, & wage rates											
Ratio, prices received to prices paid (%)2/	77	79	81	79	84	84	83	83	84	84	
Prices received (1910-14=100)	561	578	630	597	659	659	654	657	663	673	
Prices paid, etc. (parity index) (1910-14=100)	1,093	1,110	1,167	1,137	--	--	1,193	--	--	1,202	
Parity ratio (1910-14=100) (%)2/	51	52	54	53	56	56	55	55	56	56	

1/ Fresh market for noncitrus; fresh market & processing for citrus. 2/ Ratio of index of prices received for all farm products to index of prices paid for commodities and services, interest, taxes, and wage rates. Ratio derived using the most recent prices paid index. Prices paid data are quarterly and will be published in January, April, July, and October. P = preliminary. R = revised. -- = not available.

Information contact: National Agricultural Statistics Service (202) 447-5446.



Table 5.—Prices Received by Farmers, U.S. Average

	Annual 1/			1988						1989
	1986	1987	1988 P	Jan	Aug	Sept	Oct	Nov R	Dec R	Jan P
<b>Crops</b>										
All wheat (\$/bu.)	2.71	2.55	3.33	2.75	3.61	3.75	3.84	3.88	3.94	4.08
Rice, rough (\$/cwt)	5.04	4.59	7.79	7.93	7.42	6.82	6.75	6.72	6.60	6.52
Corn (\$/bu.)	1.96	1.56	2.27	1.77	2.65	2.60	2.58	2.51	2.53	2.58
Sorghum (\$/cwt)	3.11	2.56	3.66	2.75	4.39	4.24	4.17	3.98	3.99	4.07
All hay, baled (\$/ton)	61.60	62.40	78.30	62.80	83.10	85.50	86.80	87.50	89.90	91.20
Soybeans (\$/bu.)	5.00	5.08	7.21	5.73	8.33	7.94	7.53	7.43	7.53	7.64
Cotton, upland (cts./lb.)	54.8	59.6	57.2	61.7	52.6	51.8	53.9	56.7	55.3	54.2
Potatoes (\$/cwt)	5.03	4.35	5.49	3.69	5.92	4.97	4.50	5.74	5.86	6.01
Lettuce (\$/cwt)	11.90	14.70	15.20	35.20	13.20	11.10	11.40	12.60	19.00	17.90
Tomatoes (\$/cwt)	25.10	26.00	26.80	31.50	38.90	31.90	21.70	40.60	19.90	28.90
Onions (\$/cwt)	10.90	12.50	9.99	15.70	8.09	10.40	9.02	9.37	14.00	11.70
Dry edible beans (\$/cwt)	19.10	17.67	22.38	13.50	25.90	27.00	29.00	29.70	30.30	29.40
Apples for fresh use (cts./lb.)	19.8	17.6	16.7	11.2	26.1	25.1	20.8	18.9	17.2	17.9
Pears for fresh use (\$/ton)	369.00	227.00	347.00	144.00	383.00	418.00	406.00	373.00	299.00	286.00
Oranges, all uses (\$/box) 2/	4.27	5.03	6.56	5.64	4.92	4.17	5.48	5.82	6.50	6.20
Grapefruit, all uses (\$/box) 2/	4.29	4.96	5.39	5.63	4.09	7.34	7.57	4.77	4.71	3.72
<b>Livestock</b>										
Beef cattle (\$/cwt)	52.80	61.40	66.80	65.40	65.90	67.20	67.10	66.70	67.20	69.30
Calves (\$/cwt)	60.90	78.10	89.80	88.20	90.90	89.00	87.80	87.80	88.60	92.60
Hogs (\$/cwt)	50.10	50.80	42.50	43.00	44.70	40.70	38.70	36.20	39.70	41.70
Lambs (\$/cwt)	69.10	77.90	69.50	80.70	59.80	64.30	66.20	66.30	68.60	68.40
All milk, sold to plants (\$/cwt)	12.50	12.50	12.20	12.50	11.80	12.40	13.00	13.40	13.50	13.40
Milk, manuf. grade (\$/cwt)	11.46	11.37	11.21	11.30	10.90	11.60	12.30	12.50	12.60	12.30
Broilers (cts./lb.)	34.5	28.8	34.0	27.1	41.9	39.2	37.5	35.0	35.5	35.3
Eggs (cts./doz.) 3/	61.2	53.1	53.2	49.3	58.1	63.8	58.7	59.4	59.7	63.7
Turkeys (cts./lb.)	44.4	34.3	36.5	31.8	41.6	45.7	47.8	47.6	37.6	35.4
Wool (cts./lb.) 4/	64.3	87.1	124.1	75.2	128.0	111.0	135.0	116.0	101.0	107.0

1/ Calendar year averages, except for potatoes, dry edible beans, apples, oranges, & grapefruit, which are crop years. 2/ Equivalent on-tree returns. 3/ Average of all eggs sold by producers including hatching eggs & eggs sold at retail. 4/ Average local market price, excluding incentive payments. P = preliminary. R = revised.

Information contact: National Agricultural Statistics Service (202) 447-5446.

## Producer & Consumer Prices

Table 6.—Consumer Price Index for All Urban Consumers, U.S. Average (Not Seasonally Adjusted)

	Annual	1987	1988							
	1988	Dec	May	June	July	Aug	Sept	Oct	Nov	Dec
	1982-84=100									
Consumer Price Index, all items	118.3	115.4	117.5	118.0	118.5	119.0	119.8	120.2	120.3	120.5
Consumer Price Index; less food	118.3	115.5	117.6	118.1	118.4	118.9	119.7	120.2	120.3	120.4
<b>All food</b>	118.2	114.7	117.0	117.6	118.8	119.4	120.2	120.3	120.2	120.7
Food away from home	121.8	118.9	121.0	121.5	122.1	122.5	123.0	123.4	123.7	124.1
Food at home	116.6	112.8	115.1	115.8	117.3	118.1	119.0	119.0	118.7	119.1
Meats 1/	112.2	110.4	111.7	113.8	113.4	113.2	113.4	113.0	113.0	112.7
Beef & veal	112.1	108.5	111.7	114.1	113.4	112.7	113.6	113.7	114.7	114.6
Pork	112.5	113.1	111.7	114.6	114.3	114.1	113.7	111.8	110.0	109.6
Poultry	120.7	107.8	114.0	120.1	129.0	131.7	133.4	129.4	127.2	127.1
Fish	137.4	133.3	136.1	136.0	138.1	137.9	136.0	137.4	138.7	138.9
Eggs	93.6	85.5	81.8	83.6	95.1	104.2	103.1	105.5	101.2	99.6
Dairy products 2/	108.4	106.7	107.4	107.2	107.6	108.2	108.9	109.9	110.6	111.4
Fats & oils 3/	113.1	107.7	111.2	111.5	112.6	114.9	115.9	117.1	117.1	118.5
Fresh fruit	143.0	126.3	146.6	143.6	147.8	150.1	153.3	149.7	144.3	143.2
Processed fruit	122.0	112.3	121.8	123.5	123.4	123.4	123.8	124.3	125.0	124.4
Fresh vegetables	129.3	140.2	124.5	121.8	127.0	125.9	132.1	129.4	126.7	133.0
Potatoes	119.1	103.8	114.7	122.2	125.7	132.0	124.8	125.2	126.0	128.5
Processed vegetables	112.2	107.3	108.6	110.0	111.3	113.9	116.4	117.9	118.1	118.9
Cereals & bakery products	122.1	116.8	120.3	120.8	122.1	124.0	124.7	125.6	125.9	126.6
Sugar & sweets	114.0	111.0	112.5	113.3	114.0	114.8	115.6	116.0	115.9	116.7
Beverages, nonalcoholic	107.5	104.8	107.5	107.1	107.2	107.0	107.4	108.1	108.2	107.8
<b>Apparel commodities less footwear</b>	114.4	111.7	115.7	113.6	111.3	111.3	117.0	119.9	119.1	116.8
Footwear	109.9	107.2	109.7	109.2	108.2	107.4	112.2	115.9	114.5	113.5
Tobacco & smoking products	145.8	137.0	143.2	143.6	147.5	148.6	148.9	149.3	149.7	149.9
Beverages, alcoholic	118.6	115.4	118.2	118.7	119.2	119.3	119.6	119.8	119.9	119.9

1/ Beef, veal, lamb, pork, & processed meat. 2/ Includes butter. 3/ Excludes butter.

Information contact: Ralph Parlett (202) 786-1870.

Table 7.—Producer Price Indexes, U.S. Average (Not Seasonally Adjusted)

	Annual			1987	1988					
	1985	1986	1987	Dec	July R	Aug R	Sept	Oct	Nov	Dec
	1982=100									
Finished goods 1/	104.6	103.2	105.4	105.8	108.6	108.7	108.6	109.3	109.7	110.0
Consumer foods	104.6	107.2	109.5	108.9	113.6	113.6	115.2	114.6	114.9	115.1
Fresh fruit	108.1	112.9	112.0	121.2	117.7	110.3	119.0	109.4	122.1	116.8
Fresh & dried vegetables	99.4	97.8	103.7	109.0	104.7	103.3	117.7	111.9	115.0	110.5
Dried fruit	88.7	91.9	95.0	99.0	99.3	99.3	101.0	97.3	100.7	100.7
Canned fruit & juice	113.8	111.0	115.3	117.2	120.2	120.4	120.5	120.6	121.4	121.5
Frozen fruit & juice	118.5	103.0	113.3	124.4	130.5	130.8	130.6	130.6	129.7	129.2
Fresh veg. excl. potatoes	100.3	99.3	99.0	112.0	96.9	94.3	110.4	101.0	103.8	96.7
Canned veg. & juices	101.9	101.2	103.5	102.6	107.8	112.0	111.6	114.6	116.0	118.0
Frozen vegetables	106.5	106.6	107.3	106.7	107.3	109.4	109.6	110.4	112.0	112.7
Potatoes	101.2	104.0	120.1	110.9	104.2	108.8	129.7	134.6	140.5	144.3
Eggs	95.6	99.5	87.6	70.6	95.7	107.0	102.1	107.4	99.7	100.3
Bakery products	113.9	116.6	118.4	121.4	126.0	126.9	129.7	130.1	130.2	130.6
Meats	90.9	93.9	100.4	93.7	102.0	99.8	101.4	98.2	97.6	98.8
Beef & veal	90.3	88.1	95.5	92.9	101.4	98.2	103.8	102.4	103.6	104.7
Pork	89.1	99.9	104.9	87.5	101.7	99.9	96.5	88.8	85.1	87.3
Processed poultry	110.4	116.7	103.4	96.7	124.6	123.8	123.1	122.5	118.2	114.4
Fish	114.6	124.9	140.0	149.9	142.6	143.9	154.0	155.1	161.0	162.1
Dairy products	100.2	99.9	101.6	101.7	101.2	102.2	103.8	104.8	105.3	106.3
Processed fruits & vegetables	107.9	104.9	108.6	110.1	113.4	115.2	115.2	116.3	117.6	118.5
Shortening & cooking oil	123.9	103.3	103.9	108.9	126.8	124.8	124.0	121.0	118.4	118.7
Consumer finished goods less foods	103.3	98.4	100.7	101.6	103.8	103.9	103.0	104.0	104.5	104.8
Beverages, alcoholic	107.6	110.1	110.3	110.3	111.5	112.5	111.9	112.6	112.6	112.1
Soft drinks	107.7	109.5	111.8	112.8	113.2	114.1	114.3	114.9	115.0	115.3
Apparel	105.0	106.3	108.3	109.9	112.1	112.2	112.6	112.6	112.7	113.2
Footwear	104.7	106.8	109.3	111.4	115.5	116.0	116.4	116.5	117.0	117.4
Tobacco products	132.5	142.4	154.6	163.3	175.4	175.4	175.4	175.5	175.5	184.8
Intermediate materials 2/	102.6	99.1	101.5	103.6	108.2	108.4	108.7	108.6	109.0	109.5
Materials for food manufacturing	101.4	98.4	100.8	99.9	109.9	108.9	109.6	108.2	107.4	108.3
Flour	99.8	94.5	92.9	93.3	110.0	111.8	114.2	115.2	113.1	113.2
Refined sugar 3/	102.8	103.2	106.4	106.5	108.2	110.0	108.7	111.5	112.0	112.8
Crude vegetable oils	137.5	84.8	84.2	92.9	147.6	134.5	127.3	115.2	107.6	108.4
Crude materials 4/	95.8	87.7	93.7	94.4	97.3	96.9	96.6	95.8	94.0	97.0
Foodstuffs & feedstuffs	94.8	93.2	96.2	95.9	110.1	110.4	111.5	111.4	107.7	109.5
Fruits & vegetables 5/	102.6	103.9	106.8	113.8	109.9	105.9	117.7	110.3	117.6	112.7
Grains	96.1	79.2	71.1	76.9	111.5	109.9	112.9	113.8	107.4	108.9
Livestock	89.1	91.8	102.0	98.1	99.7	100.6	99.7	101.2	97.8	100.5
Poultry, live	117.8	129.6	101.2	87.7	156.4	145.1	142.7	141.0	128.0	121.7
Fibers, plant & animal	97.4	88.3	106.4	100.5	99.4	98.7	89.6	89.7	93.1	93.9
Fluid milk	93.6	90.9	91.8	91.5	84.9	88.1	89.8	92.8	95.1	97.5
Oilseeds	94.4	91.4	99.2	106.5	152.3	150.7	155.7	141.0	134.7	137.5
Tobacco, leaf	101.2	89.7	85.7	88.5	82.0	84.0	91.1	93.1	94.4	94.4
Sugar, raw cane	104.6	104.9	110.2	109.7	118.0	111.8	111.6	110.7	110.2	112.0
All commodities	103.1	100.1	102.8	104.2	107.9	108.0	108.1	108.2	108.3	109.0
Industrial commodities	103.7	99.9	102.5	104.2	106.8	107.0	106.9	107.1	107.4	108.1
All foods 6/	103.9	105.5	107.8	107.3	113.3	112.9	114.6	113.7	113.9	114.2
Farm products & processed foods & feeds	100.6	101.2	103.7	104.0	112.9	112.7	114.0	113.5	112.3	112.9
Farm products	95.1	92.9	95.5	95.7	109.1	109.3	111.1	110.3	107.4	108.6
Processed foods & feeds 6/	103.5	105.4	107.9	108.2	115.0	114.5	115.6	115.2	114.9	115.1
Cereal & bakery products	110.2	111.0	112.6	116.7	124.1	124.6	126.4	126.5	125.9	126.3
Sugar & confectionery	107.9	109.6	112.6	113.0	115.9	115.9	115.5	115.9	116.6	116.7
Beverages	107.7	114.5	112.5	112.2	113.8	114.6	114.7	115.3	115.2	115.7

1/ Commodities ready for sale to ultimate consumer. 2/ Commodities requiring further processing to become finished goods. 3/ All types & sizes of refined sugar. 4/ Products entering market for the first time that have not been manufactured at that point. 5/ Fresh & dried. 6/ Includes all raw, intermediate, & processed foods (excludes soft drinks, alcoholic beverages, & manufactured animal feeds). R = revised.

Information contact: Bureau of Labor Statistics (202) 523-1913.



# Farm-Retail Price Spreads

Table 8.—Farm-Retail Price Spreads

	Annual				1987	1988					
	1985	1986	1987	1988 P	Dec	July	Aug	Sept	Oct	Nov	Dec
Market basket 1/											
Retail cost (1982-84=100)	104.1	106.3	111.6	116.5	112.7	117.3	118.4	119.5	119.3	118.9	119.5
Farm value (1982-84=100)	96.2	94.9	97.1	100.5	94.1	104.5	104.5	105.4	104.5	104.4	103.1
Farm-retail spread (1982-84=100)	108.3	112.5	119.4	125.1	122.8	124.2	125.8	127.0	127.2	126.7	128.3
Farm value-retail cost (%)	32.4	31.2	30.5	30.2	29.2	31.2	30.9	30.9	30.7	30.7	30.2
Meat products											
Retail cost (1982-84=100)	98.9	102.0	109.6	112.2	110.4	113.4	113.2	113.4	113.0	113.0	112.7
Farm value (1982-84=100)	91.3	94.3	101.2	99.7	93.1	97.5	97.5	100.3	97.6	97.8	98.8
Farm-retail spread (1982-84=100)	106.7	109.8	118.3	125.0	128.1	129.7	129.3	126.8	128.8	128.6	126.9
Farm value-retail cost (%)	46.8	46.8	46.7	45.0	42.7	43.6	43.6	44.8	43.7	43.8	44.4
Dairy products											
Retail cost (1982-84=100)	103.2	103.3	105.9	108.4	106.7	107.6	108.2	108.9	109.9	110.6	111.4
Farm value (1982-84=100)	95.2	92.6	93.3	90.5	92.5	88.0	88.8	89.3	92.3	96.3	98.0
Farm-retail spread (1982-84=100)	110.5	113.3	117.5	124.8	119.8	125.7	126.1	127.0	126.1	123.8	123.8
Farm value-retail cost (%)	44.2	43.0	42.3	40.1	41.6	39.2	39.4	39.4	40.3	41.8	42.2
Poultry											
Retail cost (1982-84=100)	106.2	114.2	112.6	120.7	107.8	129.0	131.7	133.4	129.4	127.2	127.1
Farm value (1982-84=100)	105.9	115.1	95.8	110.4	85.1	135.5	133.8	128.4	124.8	117.9	114.4
Farm-retail spread (1982-84=100)	106.6	113.3	134.2	132.6	133.9	121.5	129.3	139.1	134.7	137.9	141.7
Farm value-retail cost (%)	53.3	53.9	44.6	49.0	42.3	56.2	54.4	51.5	51.6	49.6	48.2
Eggs											
Retail cost (1982-84=100)	91.0	97.2	91.5	93.6	85.5	95.1	104.2	103.1	105.5	101.2	99.6
Farm value (1982-84=100)	85.7	92.4	76.8	76.7	66.7	84.9	86.6	97.0	87.6	89.2	90.1
Farm-retail spread (1982-84=100)	100.4	106.0	117.9	123.9	119.2	113.4	135.9	114.1	137.6	122.8	116.7
Farm value-retail cost (%)	60.5	61.0	53.9	52.7	50.2	57.4	53.4	60.4	53.4	56.6	58.1
Cereal & bakery products											
Retail cost (1982-84=100)	107.9	110.9	114.8	122.1	116.8	122.1	124.0	124.7	125.6	125.9	126.6
Farm value (1982-84=100)	94.3	76.3	71.0	92.3	76.4	97.1	99.1	98.7	100.1	98.9	100.5
Farm-retail spread (1982-84=100)	109.8	115.7	120.9	126.3	122.4	125.6	127.5	128.3	129.2	129.7	130.2
Farm value-retail cost (%)	10.7	8.4	7.6	9.2	8.0	9.7	9.8	9.7	9.8	9.6	9.7
Fresh fruits											
Retail cost (1982-84=100)	118.4	120.4	135.6	145.4	128.5	150.7	153.5	157.5	151.9	147.6	147.0
Farm value (1982-84=100)	110.8	103.8	113.9	113.3	130.8	129.6	125.5	118.6	116.0	123.9	110.9
Farm-retail spread (1982-84=100)	121.8	128.0	145.7	160.2	127.4	160.4	166.4	175.5	168.5	158.5	163.7
Farm value-retail cost (%)	29.6	27.4	26.5	24.6	32.2	27.2	25.8	23.8	24.1	26.5	23.8
Fresh vegetables											
Retail costs (1982-84=100)	103.5	107.7	121.6	129.3	140.2	127.0	125.9	132.1	129.4	126.7	133.0
Farm value (1982-84=100)	93.1	90.0	112.0	109.5	113.8	112.1	121.4	125.9	127.1	118.2	101.7
Farm-retail spread (1982-84=100)	108.9	116.8	126.5	139.4	153.8	134.7	128.2	135.3	130.6	131.1	149.1
Farm value-retail cost (%)	30.5	28.4	31.3	28.8	27.6	30.0	32.7	32.4	33.4	31.7	26.0
Processed fruits & vegetables											
Retail cost (1982-84=100)	107.0	105.3	109.0	117.6	110.0	117.8	119.2	120.4	121.4	121.9	121.9
Farm value (1982-84=100)	117.7	101.5	111.1	136.5	127.4	139.8	140.1	142.7	145.2	145.0	136.8
Farm-retail spread (1982-84=100)	103.7	106.4	108.3	111.7	104.6	110.9	112.7	113.4	114.0	114.7	117.2
Farm value-retail costs (%)	26.2	22.9	24.2	27.6	27.5	28.2	27.9	28.2	28.4	28.3	26.7
Fats & oils											
Retail cost (1982-84=100)	108.9	106.5	108.1	113.1	107.7	112.6	114.9	115.9	117.1	117.1	118.5
Farm value (1982-84=100)	104.3	76.2	74.1	103.2	78.9	132.9	114.7	106.1	102.5	98.9	100.4
Farm-retail spread (1982-84=100)	110.6	117.6	120.6	116.8	118.3	105.1	115.0	119.5	122.5	123.8	125.2
Farm value-retail cost (%)	25.8	19.2	18.4	24.5	19.7	31.8	26.9	24.6	23.5	22.7	22.8

1/ Retail costs are based on indexes of retail prices for domestically produced farm foods from the CPI-U published monthly by the Bureau of Labor Statistics. The farm value is the payment to farmers for quantity of farm product equivalent to retail unit, less allowance for byproduct. Farm values are based on prices at first point of sale & may include marketing charges such as grading & packing for some commodities. The farm-retail spread, the difference between the retail price & the farm value, represents charges for assembling, processing, transporting, distributing these foods. 2/ Estimated weighted average price of retail cuts from pork & choice yield grade 3 beef carcasses. Retail cut prices from BLS. 3/ Value of carcass quantity (beef) & wholesale cuts (pork) equivalent to 1 lb. of retail cuts; beef adjusted for value of fat & bone byproducts. 4/ Market value to producer for quantity of live animal equivalent to 1 lb. of retail cuts minus value of byproducts. 5/ Represents charges for retailing & other marketing services such as fabricating, wholesaling, in-city transportation. 6/ Represents charges made for livestock marketing, processing, & transportation to city where consumed. P = preliminary.

Note: Annual historical data on farm-retail price spreads may be found in Food Cost Review, 1986, AER No. 574, ERS, USDA.  
Information contacts: Denis Dunham (202) 786-1870, Ron Gustafson (202) 786-1286.

Table 9.—Price Indexes of Food Marketing Costs

	Annual			1987		1988			
	1986	1987	1988	III	IV	I	II	III	IV P
	1967=100*								
Labor--hourly earnings <sup>a</sup>									
& benefits	359.4	361.1	368.7	360.3	362.4	366.5	367.9	367.3	373.2
Processing	363.4	370.2	379.7	368.0	371.7	377.8	380.9	379.2	380.7
Wholesaling	376.3	384.2	394.3	384.3	387.1	390.6	392.0	395.1	399.4
Retailing	347.9	341.7	346.6	342.2	342.1	344.5	344.2	343.2	354.3
Packaging & containers	317.4	329.8	350.7	330.6	335.8	341.0	347.8	355.6	358.4
Paperboard boxes & containers	269.1	288.0	308.1	288.8	296.5	299.1	307.1	311.4	314.6
Metal cans	430.1	433.0	442.3	433.5	433.5	443.9	443.9	443.3	438.1
Paper bags & related products	307.9	331.3	372.2	333.4	342.4	351.1	359.9	382.2	395.7
Plastic films & bottles	274.8	280.2	305.7	280.1	284.7	288.3	302.4	315.0	317.0
Glass containers	398.0	402.0	398.9	401.4	400.1	400.0	398.7	398.6	398.2
Metal foil	209.3	222.1	266.9	226.3	241.2	249.0	256.9	277.5	284.1
Transportation services	391.7	385.0	403.5	385.4	385.3	399.6	405.2	404.4	404.8
Advertising	339.7	361.1	384.6	363.2	367.4	377.9	382.8	386.6	390.9
Fuel & power	590.2	596.7	578.2	612.2	602.4	575.7	585.1	580.9	571.1
Electric	457.9	450.5	453.3	465.5	444.7	440.3	446.8	474.9	451.3
Petroleum	499.8	561.4	502.0	582.5	601.4	526.7	534.0	472.4	474.7
Natural gas	1,096.9	1,049.0	1,042.1	1,057.2	1,027.6	1,021.3	1,042.7	1,049.1	1,055.3
Communications, water & sewage	236.1	238.4	241.3	239.7	239.5	239.9	241.0	241.3	243.0
Rent	273.8	279.4	280.6	280.6	281.2	280.6	280.5	280.7	280.7
Maintenance & repair	368.5	382.6	395.9	385.1	387.9	391.2	395.3	397.5	399.7
Business services	334.1	346.1	356.8	346.8	350.6	352.0	356.9	358.5	359.9
Supplies	282.8	286.8	305.6	287.1	290.2	294.9	302.2	310.2	315.2
Property taxes & insurance	382.3	399.6	419.9	401.2	408.3	412.8	416.2	422.5	428.3
Interest, short-term	125.1	132.9	150.3	137.5	143.5	131.4	142.0	159.8	168.0
Total marketing cost index	354.9	360.4	371.4	361.3	363.4	367.0	370.8	372.5	375.4

\* Indexes measure changes in employee earnings & benefits & in prices of supplies & services used in processing, wholesaling, & retailing U.S. farm foods purchased for at-home consumption. P = preliminary.

Information contact: Denis Dunham (202) 786-1870.



# Livestock & Products

Table 10.—U.S. Meat Supply & Use

	Beg. stocks	Pro- duc- tion 1/	Im- ports	Total supply	Ex- ports	Ship- ments	Ending stocks	Consumption		Primary market price 3/
								Total	Per capita 2/ Pounds	
	Million pounds 4/									
Beef										
1986	420	24,371	2,129	26,919	521	52	412	25,935	78.4	57.75
1987	412	23,566	2,269	26,247	604	52	386	25,205	73.4	64.60
1988 F	386	23,580	2,385	26,351	678	61	406	25,206	72.7	69.54
1989 F	406	22,911	2,200	25,517	700	60	325	24,432	69.9	70.76
Pork										
1986	289	14,063	1,122	15,474	86	132	248	15,008	58.6	51.19
1987	248	14,374	1,195	15,817	109	124	347	15,237	59.1	51.69
1988 F	347	15,676	1,130	17,152	196	135	413	16,408	63.0	43.39
1989 F	413	15,512	1,100	17,025	130	140	325	16,430	62.7	42.48
Veal										
1986	11	524	27	562	5	1	7	550	1.9	60.89
1987	7	429	24	460	7	1	4	449	1.5	78.05
1988 F	4	400	28	432	11	1	5	415	1.4	89.79
1989 F	5	403	25	433	9	1	4	419	1.4	86.92
Lamb & mutton										
1986	13	338	41	392	2	2	13	375	1.4	70.26
1987	13	315	44	372	2	2	8	360	1.3	78.09
1988 F	8	335	51	394	1	1	7	385	1.4	68.84
1989 F	7	336	60	403	1	0	7	395	1.4	63.69
Total red meat										
1986	733	39,296	3,319	43,348	613	187	680	41,868	140.2	--
1987	680	38,684	3,533	42,897	722	179	744	41,251	135.3	--
1988 F	745	39,991	3,594	44,330	886	198	831	42,415	138.5	--
1989 F	831	39,162	3,385	43,378	840	201	661	41,676	135.4	--
Broilers										
1986	27	14,316	0	14,342	566	149	24	13,603	56.3	56.9
1987	24	15,594	0	15,618	752	151	25	14,691	60.2	47.4
1988 F	25	16,066	0	16,091	740	151	36	15,164	61.6	56.3
1989 F	36	16,950	0	16,986	700	140	25	16,121	64.9	53.59
Mature chicken										
1986	144	627	0	771	16	3	163	589	2.4	--
1987	163	650	0	814	15	2	188	608	2.5	--
1988 F	188	630	0	818	25	3	160	631	2.6	--
1989 F	160	648	0	808	18	4	150	636	2.6	--
Turkeys										
1986	150	3,271	0	3,422	27	4	178	3,212	13.3	72.2
1987	178	3,828	0	4,006	33	4	282	3,686	15.1	57.8
1988 F	282	4,014	0	4,297	52	2	252	3,991	16.2	61.3
1989 F	252	4,170	0	4,422	40	4	175	4,203	16.9	63.69
Total poultry										
1986	321	18,215	0	18,535	609	156	365	17,405	72.0	--
1987	365	20,072	0	20,437	800	157	495	18,985	77.8	--
1988 F	495	20,711	0	21,206	817	152	448	19,785	80.4	--
1989 F	448	21,768	0	22,216	758	148	350	20,960	84.4	--
Red meat & poultry										
1986	1,054	57,511	3,319	61,883	1,223	343	1,045	59,273	212.3	--
1987	1,045	58,756	3,533	63,334	1,522	336	1,240	60,236	213.2	--
1988 F	1,240	60,702	3,594	65,535	1,703	354	1,279	62,200	218.9	--
1989 F	1,279	60,930	3,385	65,594	1,598	349	1,011	62,636	219.8	--

1/ Total including farm production for red meats & federally inspected plus nonfederally inspected for poultry.  
 2/ Retail weight basis. (The beef carcass-to-retail conversion factor was .74 during 1962-85. It was lowered to .73 for 1986 & to .71 for 1987 & later.) 3/ Dollars per cwt for red meat; cents per pound for poultry. Beef: Choice steers, Omaha 1,000-1,100 lb.; pork: barrows and gilts, 7 markets; veal: farm price of calves; lamb & mutton: Choice slaughter lambs, San Angelo; broilers: wholesale 12-city average; turkeys: wholesale NY 8-16 lb. young hens. 4/ Carcass weight for red meats & certified ready-to-cook for poultry. F = forecast. -- = not available.

Information contacts: Ron Gustafson, Leland Southard, or Mark Weimar (202) 786-1285.

Table 11.—U.S. Egg Supply &amp; Use

	Beg. stocks	Pro-duction	Im-ports	Total supply	Ex-ports	Ship-ments	Hatch-ing use	Ending stocks	Consumption		Wholesale price*
									Total	Per capita	
										No.	Cts./doz.
Million dozen											
1984	9.3	5,708.3	32.0	5,749.7	58.2	27.8	529.7	11.1	5,122.8	259.4	80.9
1985	11.1	5,688.0	12.7	5,711.8	70.6	30.3	548.1	10.7	5,052.0	253.3	66.4
1986	10.7	5,705.0	13.7	5,729.4	101.6	28.0	566.8	10.4	5,022.6	249.4	71.1
1987	10.4	5,802.3	5.6	5,818.3	111.2	25.1	597.1	14.4	5,070.5	249.4	61.6
1988	14.4	5,771.1	5.7	5,791.2	142.3	25.4	604.3	10.0	5,009.2	244.3	62.1
1989 F	10.0	5,645.0	6.0	5,661.0	110.0	24.0	630.0	10.0	4,887.0	236.2	67-73

\* Cartoned grade A large eggs, New York. F = forecast.

Information contact: Robert Bishop (202) 786-1714.

Table 12.—U.S. Milk Supply & Use<sup>1</sup>

	Pro-duction	Farm use	Commercial		Im-ports	Total commercial supply	CCC net re-movals	Commercial		All milk price 2/
			Farm market-ings	Beg. stocks				Ending stocks	Disap-pearance	
										\$/cwt
Billion pounds										
1981	132.8	2.3	130.5	5.8	2.3	138.5	12.9	5.4	120.3	13.77
1982	135.5	2.4	133.1	5.4	2.5	141.0	14.3	4.6	122.1	13.61
1983	139.7	2.4	137.3	4.6	2.6	144.5	16.8	5.2	122.5	13.58
1984	135.4	2.9	132.5	5.2	2.7	140.5	8.6	4.9	126.9	13.46
1985	143.1	2.5	140.7	4.9	2.8	148.4	13.2	4.6	130.6	12.75
1986	143.4	2.4	141.0	4.6	2.7	148.3	10.6	4.2	133.5	12.51
1987	142.5	2.2	140.3	4.2	2.5	146.9	6.7	4.6	135.6	12.54
1988 F	145.5	2.2	143.3	4.6	2.5	150.4	8.9	4.2	137.3	12.21
1989 P	146.0	2.2	143.8	4.2	2.4	150.4	6.3	4.6	139.5	12.50

1/ Milkfat basis. Totals may not add because of rounding. 2/ Delivered to plants & dealers; does not reflect deductions. F = forecast.

Information contact: Jim Miller (202) 786-1770.

Table 13.—Poultry &amp; Eggs

	Annual			1987	1988					
	1986	1987	1988 P	Dec	July	Aug	Sept	Oct	Nov	Dec
Broilers										
Federally inspected slaughter, certified (mil. lb.)	14,265.6	15,502.5	15,984.0	1,336.8	1,234.1	1,421.9	1,377.4	1,323.6	1,260.1	1,282.6
Wholesale price, 12-city (cts./lb.)	56.9	47.4	56.3	39.8	66.5	68.9	62.8	57.7	57.1	58.8
Price of grower feed (\$/ton)	187	186	220	197	248	246	245	259	259	254
Broiler-feed price ratio 1/	3.7	3.7	3.1	2.5	3.4	3.4	3.2	2.9	2.7	2.8
Stocks beginning of period (mil. lb.)	26.6	23.9	24.8	24.1	40.3	43.8	31.2	32.0	34.6	35.0
Broiler-type chicks hatched (mil.) 2/	5,013.3	5,379.2	5,588.7	469.7	471.5	478.8	454.3	452.3	437.1	487.5
Turkeys										
Federally inspected slaughter, certified (mil. lb.)	3,133	3,717	3,903	297.0	323.3	377.3	365.7	379.5	365.3	267.8
Wholesale price, Eastern U.S., 8-16 lb. young hens (cts./lb.)	72.2	57.8	61.3	65.3	70.2	70.5	76.5	79.6	75.8	61.7
Price of turkey grower feed (\$/ton)	215	213	243	213	272	268	269	266	264	269
Turkey-feed price ratio 1/	4.1	3.9	3.0	3.6	2.9	3.1	3.4	3.6	3.6	2.8
Stocks beginning of period (mil. lb.)	150.2	178.2	282.4	321.5	467.3	503.2	561.2	583.1	590.0	304.3
Poults placed in U.S. (mil.)	225.4	240.4	242.0	20.0	23.9	19.3	16.0	16.2	18.3	20.0
Eggs										
Farm production (mil.)	68,460	69,627	69,253	6,047	5,721	5,746	5,580	5,833	5,694	5,824
Average number of layers (mil.)	278	280	286	286	270	271	274	276	276	273
Rate of lay (eggs per layer on farms)	248	248	251	21.2	21.2	21.2	20.4	21.2	20.7	21.4
Cartoned price, New York, grade A large (cts./doz.) 3/	71.1	61.6	62.1	56.9	73.7	69.5	75.6	66.0	65.3	70.7
Price of laying feed (\$/ton)	174	170	202	168	236	237	236	232	220	221
Egg-feed price ratio 1/	7.0	7.6	5.3	5.8	4.9	4.9	5.4	5.3	5.4	5.4
Stocks, first of month										
Shell (mil. doz.)	.72	1.16	1.29	1.20	.90	.84	.75	.69	.72	.71
Frozen (mil. doz.)	10.0	9.8	13.1	13.2	19.2	17.4	18.7	16.8	15.2	13.7
Replacement chicks hatched (mil.)	424	428	366	31.2	24.8	27.3	30.6	30.6	29.2	27.0

1/ Pounds of feed equal in value to 1 dozen eggs or 1 lb. of broiler or turkey liveweight. 2/ Placement of broiler chicks is currently reported for 12 States only; henceforth, hatch of broiler-type chicks will be used as a substitute. 3/ Price of cartoned eggs to volume buyers for delivery to retailers. P = preliminary.

Information contact: Mark Weimar (202) 786-1714.



Table 14.—Dairy

	Annual			1987	1988					
	1986	1987	1988 P	Dec	July	Aug	Sept	Oct	Nov	Dec
Milk prices, Minnesota-Wisconsin, 3.5% fat (\$/cwt) 1/	11.30	11.23	11.03	11.12	10.52	10.98	11.48	11.88	12.23	12.27
Wholesale prices										
Butter, grade A Chi. (cts./lb.)	144.5	140.2	132.5	134.0	135.9	135.6	134.3	132.0	131.2	131.2
Am. cheese, Wis. assembly pt. (cts./lb.)	127.3	123.2	123.8	120.7	118.3	127.6	134.6	136.4	136.3	136.0
Nonfat dry milk (cts./lb.) 2/	80.6	79.3	80.2	80.2	77.1	80.6	87.2	88.8	90.1	92.7
USDA net removals										
Total milk equiv. (mil. lb.) 3/	10,628.1	6,706.0	8,856.2	746.4	248.9	240.0	142.3	339.1	217.3	448.7
Butter (mil. lb.)	287.6	187.3	312.6	18.7	5.2	7.8	5.0	15.2	9.2	19.8
Am. cheese (mil. lb.)	468.4	282.0	238.1	36.1	13.6	7.5	3.4	2.2	2.3	3.8
Nonfat dry milk (mil. lb.)	827.3	559.4	267.5	42.4	-7	-4	0	0	0	0
Milk										
Milk prod. 21 states (mil. lb.)	121,433	121,094	123,533	10,038	10,513	10,283	9,890	10,117	9,791	10,233
Milk per cow (lb.)	13,399	13,932	14,358	1,158	1,225	1,199	1,152	1,179	1,142	1,194
Number of milk cows (1,000)	9,063	8,692	8,604	8,667	8,579	8,578	8,587	8,584	8,573	8,572
U.S. milk production (mil. lb.)	143,381	142,462	145,450	6/11,808	6/12,356	6/12,086	6/11,621	6/11,899	6/11,515	6/12,035
Stock, beginning										
Total (mil. lb.)	13,695	12,867	7,371	8,147	11,149	11,277	10,872	9,536	9,091	8,364
Commercial (mil. lb.)	4,590	4,165	4,577	4,696	5,376	5,403	5,182	4,681	4,501	4,051
Government (mil. lb.)	9,105	8,702	2,794	3,451	5,772	5,874	5,691	4,855	4,590	4,313
Imports, total (mil. lb.) 3/	2,733	2,490	2,159	249	208	211	178	210	240	--
Commercial disappearance (mil. lb.)	133,498	135,630	--	11,243	12,101	12,091	11,977	11,763	11,807	--
Butter										
Production (mil. lb.)	1,202.4	1,104.1	1,198.2	108.5	75.9	74.2	83.0	92.2	92.2	111.2
Stocks, beginning (mil. lb.)	205.5	193.0	143.2	158.5	294.7	295.7	290.0	247.6	237.3	266.3
Commercial disappearance (mil. lb.)	922.9	902.5	--	81.3	70.6	65.5	89.5	81.7	89.7	--
American cheese										
Production (mil. lb.)	2,798.2	2,716.7	2,787.0	232.6	235.9	213.7	210.1	224.1	214.1	242.1
Stocks, beginning (mil. lb.)	850.2	697.1	370.4	408.6	413.0	415.8	385.1	344.4	321.7	280.2
Commercial disappearance (mil. lb.)	2,382.8	2,444.1	--	227.4	229.9	235.4	230.2	231.7	236.6	--
Other cheese										
Production (mil. lb.)	2,411.1	2,627.6	2,744.7	237.2	218.3	228.0	238.5	243.4	239.9	240.6
Stocks, beginning (mil. lb.)	94.1	92.0	89.7	92.6	99.4	107.4	109.9	106.5	107.4	106.1
Commercial disappearance (mil. lb.)	2,684.9	2,880.1	--	262.5	232.0	247.9	260.0	264.7	267.2	--
Nonfat dry milk										
Production (mil. lb.)	1,284.1	1,059.0	968.4	90.0	79.5	66.6	60.1	56.0	56.0	73.4
Stocks, beginning (mil. lb.)	1,011.1	686.8	177.2	188.0	160.4	138.5	92.9	63.6	64.3	50.4
Commercial disappearance (mil. lb.)	479.1	495.1	--	28.1	76.7	85.2	69.1	50.9	66.8	--
Frozen dessert										
Production (mil. gal.) 4/	1,248.6	1,263.4	1,270.1	82.4	132.0	132.3	110.0	91.5	83.4	79.9

1/ Manufacturing grade milk. 2/ Prices paid f.o.b. Central States production area, high heat spray process. 3/ Milk equivalent, fat basis. 4/ Ice cream, ice milk, & hard sherbet. 5/ Based on average milk price after adjustment for price support deductions. 6/ Estimated. P = preliminary. -- = not available.

Information contact: Jim Miller (202) 786-1770.

Table 15.—Wool

	Annual			1987	1988					
	1986	1987	1988 P	Dec	July	Aug	Sept	Oct	Nov	Dec
U.S. wool price, Boston 1/ (cts./lb.)	191	265	438	300	450	450	450	463	475	450
Imported wool price, Boston 2/ (cts./lb.)	201	247	372	278	364	355	362	378	377	391
U.S. mill consumption, scoured										
Apparel wool (1,000 lb.)	126,768	129,677	128,317	11,173	9,798	9,666	10,547	10,040	9,127	12,089
Carpet wool (1,000 lb.)	9,960	13,092	15,826	708	1,089	1,657	1,715	993	971	1,006

1/ Wool price delivered at U.S. mills, clean basis, Graded Territory 64's (20.60-22.04 microns) staple 2-3/4" & up. 2/ Wool price delivered at U.S. mills, clean basis, Australian 60/62's, type 64A (24 micron). Duty since 1982 has been 10.0 cents. P = preliminary.

Information contact: John Lawler (202) 786-1840.

Table 16.—Meat Animals

	Annual			1987	1988					
	1986	1987	1988	Dec	July	Aug	Sept	Oct	Nov	Dec
Cattle on feed (7 States)										
Number on feed (1,000 head) 1/	7,920	7,643	8,066	8,412	7,431	6,855	6,689	7,144	7,934	8,000
Placed on feed (1,000 head)	20,035	21,040	20,584	1,340	1,246	1,660	2,169	2,475	1,680	1,401
Marketings (1,000 head)	19,263	19,410	19,698	1,567	1,760	1,760	1,647	1,601	1,507	1,521
Other disappearance (1,000 head)	1,049	1,207	1,187	119	62	66	67	84	107	115
Beef steer-corn price ratio,										
Omaha 2/	31.0	41.0	31.5	36.7	24.5	26.2	26.4	26.4	28.4	27.9
Hog-corn price ratio, Omaha 2/	27.8	32.8	19.6	23.8	16.8	17.8	15.9	14.9	14.7	16.2
Market prices (\$/cwt)										
Slaughter cattle										
Choice steers, Omaha	57.75	64.60	69.54	63.93	65.96	67.08	67.71	69.13	70.07	71.21
Utility cows, Omaha	37.19	44.83	46.55	46.69	45.39	47.33	48.42	47.71	42.10	45.14
Choice vealers, S. St. Paul 3/	59.92	78.74	90.23	83.00	77.50	87.50	240.42	213.75	239.00	225.94
Feeder cattle										
Choice, Kansas City, 600-700 lb.	62.79	75.36	83.67	78.90	79.08	84.65	84.00	85.81	83.90	86.13
Slaughter hogs										
Barrows & gilts, 7-markets	51.19	51.69	43.39	41.14	45.57	46.10	41.04	38.95	36.45	40.58
Feeder pigs										
S. Mo. 40-50 lb. (per head)	45.62	46.69	38.88	31.74	27.57	27.40	28.30	30.95	29.82	29.17
Slaughter sheep & lambs										
Lambs, Choice, San Angelo	69.46	78.09	68.84	73.83	59.00	56.19	59.50	63.94	65.55	68.38
Ewes, Good, San Angelo	34.78	38.62	38.88	39.88	37.83	38.20	37.38	36.88	38.75	42.08
Feeder lambs										
Choice, San Angelo	73.14	102.26	90.91	105.83	79.67	79.50	78.56	80.38	82.00	85.00
Wholesale meat prices, Midwest										
Choice steer beef, 600-700 lb.	88.98	97.21	103.34	94.50	97.09	101.04	103.15	104.36	104.73	106.20
Canner & cutter cow beef	71.31	83.70	87.77	88.45	85.74	86.51	87.73	85.58	85.32	90.03
Pork loins, 14-18 lb. 4/	104.78	106.23	97.49	84.70	104.96	106.88	97.92	85.33	77.87	93.61
Pork bellies, 12-14 lb.	65.82	63.11	41.25	42.60	40.84	37.46	33.05	34.97	33.64	34.82
Hams, skinned, 14-17 lb.	80.01	80.96	71.03	91.98	65.90	67.16	73.20	78.33	78.06	65.50
All fresh beef retail price 5/	--	212.64	224.35	218.26	226.07	224.32	225.41	230.59	232.94	232.97
Commercial slaughter (1,000 head)*										
Cattle	37,288	35,647	35,072	2,899	2,982	3,206	3,011	2,965	2,799	2,774
Steers	17,516	17,443	17,341	1,425	1,494	1,567	1,437	1,368	1,317	1,354
Heifers	11,097	10,906	10,755	868	927	1,039	994	965	827	817
Cows	7,961	6,610	6,334	555	512	542	522	573	601	554
Bulls & stags	714	689	642	51	49	58	58	59	54	49
Calves	3,408	2,815	2,504	252	215	234	215	206	210	210
Sheep & lambs	5,635	5,199	5,293	451	405	462	469	453	432	460
Hogs	79,598	81,081	87,738	7,813	6,365	7,284	7,715	8,092	8,132	7,942
Commercial production (mil. lb.)										
Beef	24,213	23,405	23,419	1,924	1,982	2,162	2,042	2,006	1,875	1,872
Veal	509	416	387	36	31	35	33	34	33	32
Lamb & mutton	331	309	329	28	24	28	28	28	27	29
Pork	13,998	14,312	15,614	1,390	1,133	1,281	1,359	1,442	1,462	1,424
	Annual			1987		1988				
	1986	1987	1988	III	IV	I	II	III	IV	I
Cattle on feed (13 States)										
Number on feed (1,000 head) 1/	9,754	9,245	9,769	8,666	8,992	9,769	9,385	9,001	8,591	9,408
Placed on feed (1,000 head)	23,583	24,894	24,353	6,590	6,718	5,824	5,893	5,986	6,650	--
Marketings (1,000 head)	22,856	22,991	23,339	6,022	5,603	5,823	5,859	6,171	5,486	7/5,728
Other disappearance (1,000 head)	1,236	1,379	1,375	242	338	385	418	225	347	--
Hogs & pigs (10 States) 6/										
Inventory (1,000 head) 1/	41,100	39,690	42,995	40,995	43,150	42,995	41,345	44,065	45,000	43,010
Breeding (1,000 head) 1/	5,258	5,110	5,510	5,340	5,310	5,510	5,520	5,630	5,460	5,315
Market (1,000 head) 1/	35,842	34,580	37,485	35,615	37,840	37,485	35,825	38,435	39,540	37,695
Farrowings (1,000 head)	8,223	8,838	9,316	2,284	2,260	2,123	2,578	2,359	2,256	7/2,123
Pig crop (1,000 head)	63,835	68,888	71,848	17,692	17,572	16,489	20,176	18,007	17,177	--

1/ Beginning of period. 2/ Bushels of corn equal in value to 100 pounds live weight. 3/ Per head starting September 1988. 4/ Prior to 1984, 8-14 lb.; 1984 & 1985, 14-17 lb.; beginning 1986, 14-18 lb. 5/ New series estimating the composite price of all beef grades & ground beef sold by retail stores. This new series is in addition to, but does not replace, the series for the retail price of Choice beef that appears in table 8. 6/ Quarters are Dec. of preceding year-Feb. (I), Mar.-May (II), June-Aug. (III), and Sept.-Nov. (IV). 7/ Intentions. \*Classes estimated. -- = not available.

Information contacts: Ron Gustafson or Leland Southard (202) 786-1285.



## Crops & Products

Table 17.—Supply & Utilization<sup>1,2</sup>

	Area			Yield	Production	Total supply	Feed and residual	Other domestic use	Exports	Total use	Ending stocks	Farm price
	Set aside 3/	Planted	Harvested									
	Mil. acres		Bu./acre					Mil. bu.				\$/bu.
Wheat												
1983/84	30.0	76.4	61.4	39.4	2,420	3,939	369	742	1,429	2,540	1,399	3.51
1984/85	18.3	79.2	66.9	38.8	2,595	4,003	405	749	1,424	2,578	1,425	3.39
1985/86	18.8	75.6	64.7	37.5	2,425	3,866	279	767	915	1,961	1,905	3.08
1986/87*	20.2	72.1	60.7	34.4	2,092	4,018	413	780	1,004	2,197	1,821	2.42
1987/88*	27.9	65.8	56.0	37.7	2,107	3,945	280	804	1,592	2,684	1,261	2.57
1988/89*	30.1	65.5	53.2	34.1	1,811	3,094	230	830	1,506	2,560	534	3.65-3.80
	Mil. acres		Lb./acre					Mil. cwt (rough equiv.)				\$/cwt
Rice												
1983/84	1.74	2.19	2.17	4,598	99.7	172.1	--	6/54.9	70.3	125.0	46.9	8.57
1984/85	.79	2.83	2.80	4,954	138.8	187.3	--	6/60.5	62.1	122.6	64.7	8.04
1985/86	1.24	2.51	2.49	5,414	134.9	201.8	--	6/65.8	58.7	124.5	77.3	6.53
1986/87*	1.48	2.38	2.36	5,651	133.4	213.3	--	6/77.7	84.2	161.9	51.4	3.75
1987/88*	1.51	2.36	2.33	5,555	129.6	184.0	--	6/80.4	72.2	152.6	31.4	7.27
1988/89*	.93	2.93	2.90	5,511	159.5	194.6	--	6/82.2	74.0	156.2	38.4	6.00-7.00
	Mil. acres		Bu./acre					Mil. bu.				\$/bu.
Corn												
1983/84	32.2	60.2	51.5	81.1	4,175	7,700	3,818	975	1,901	6,694	1,006	3.21
1984/85	3.9	80.5	71.9	106.7	7,674	8,684	4,079	1,091	1,865	7,036	1,648	2.63
1985/86	5.4	83.4	75.2	118.0	8,877	10,536	4,095	1,160	1,241	6,496	4,040	2.23
1986/87*	12.7	76.7	69.2	119.3	8,250	12,291	4,714	1,192	1,504	7,410	4,882	1.50
1987/88*	23.0	65.7	59.2	119.4	7,072	11,958	4,738	1,229	1,732	7,699	4,259	1.94
1988/89*	20.8	67.6	58.2	84.6	4,921	9,185	4,300	1,225	2,000	7,525	1,660	2.40-2.70
	Mil. acres		Bu./acre					Mil. bu.				\$/bu.
Sorghum												
1983/84	5.7	11.9	10.0	48.7	488	927	385	10	245	640	287	2.74
1984/85	.6	17.3	15.4	56.4	866	1,154	539	18	297	854	300	2.32
1985/86	.9	18.3	16.8	66.8	1,120	1,420	664	28	178	849	551	1.93
1986/87*	2.3	15.3	13.9	67.7	938	1,489	535	12	198	746	743	1.37
1987/88*	4.1	11.8	10.6	69.9	739	1,483	564	25	231	820	663	1.70
1988/89*	4.0	10.5	9.0	60.6	578	1,240	515	20	275	810	430	2.20-2.50
	Mil. acres		Bu./acre					Mil. bu.				\$/bu.
Barley												
1983/84	1.1	10.4	9.7	52.3	509	733	282	170	92	544	189	2.47
1984/85	.5	12.0	11.2	53.4	599	799	304	170	77	551	247	2.29
1985/86	.7	13.2	11.6	51.0	591	848	333	169	22	523	325	1.98
1986/87*	1.8	13.1	12.0	50.8	611	944	298	174	137	608	336	1.61
1987/88*	2.9	11.0	10.0	52.6	530	879	258	174	126	558	321	1.81
1988/89*	2.9	9.7	7.4	38.2	291	627	240	175	50	465	162	2.80-2.90
	Mil. acres		Bu./acre					Mil. bu.				\$/bu.
Oats												
1983/84	.3	20.3	9.1	52.6	477	727	466	78	2	546	181	1.62
1984/85	.1	12.4	8.2	58.0	474	689	433	74	1	509	180	1.67
1985/86	.1	13.3	8.2	63.7	521	728	460	82	2	544	184	1.23
1986/87*	.4	14.7	6.9	56.3	386	603	395	75	3	471	133	1.21
1987/88*	.8	18.0	6.9	54.0	374	553	361	79	1	441	112	1.56
1988/89*	.3	14.0	5.4	39.1	219	391	215	86	1	302	89	2.60-2.75
	Mil. acres		Bu./acre					Mil. bu.				\$/bu.
Soybeans												
1983/84	0	63.8	62.5	26.2	1,636	1,981	7779	983	743	1,805	176	7.83
1984/85	0	67.8	66.1	28.1	1,861	2,037	7793	1,030	598	1,721	316	5.84
1985/86	0	63.1	61.6	34.1	2,099	2,415	7786	1,053	740	1,879	536	5.05
1986/87*	0	60.4	58.3	33.3	1,940	2,476	77104	1,179	757	2,040	436	4.78
1987/88*	0	58.0	57.0	33.7	1,923	2,359	7781	1,174	802	2,057	302	6.15
1988/89*	0	58.9	57.4	26.8	1,539	1,841	7796	1,040	565	1,701	140	7.00-8.25
	Mil. lbs.							Mil. lbs.				\$/Cts./lb.
Soybean oil												
1983/84	--	--	--	--	10,872	12,133	--	9,588	1,824	11,412	721	30.60
1984/85	--	--	--	--	11,468	12,209	--	9,917	1,660	11,577	632	29.50
1985/86	--	--	--	--	11,617	12,257	--	10,053	1,257	11,310	947	18.00
1986/87*	--	--	--	--	12,783	13,745	--	10,833	1,187	12,020	1,725	15.40
1987/88*	--	--	--	--	9/ 12,974	14,895	--	10,930	1,873	12,803	2,092	22.65
1988/89*	--	--	--	--	9/ 11,548	13,840	--	10,900	1,300	12,200	1,640	21.00-24.00
								1,000 tons				10/ \$/ton
Soybean meal												
1983/84	--	--	--	--	22,756	23,230	--	17,615	5,360	22,975	255	188
1984/85	--	--	--	--	24,529	24,784	--	19,480	4,917	24,397	387	125
1985/86	--	--	--	--	24,951	25,338	--	19,090	6,036	25,126	212	155
1986/87*	--	--	--	--	27,758	27,970	--	20,387	7,343	27,750	240	163
1987/88*	--	--	--	--	28,060	28,300	--	21,276	6,871	28,147	153	222
1988/89*	--	--	--	--	24,647	24,800	--	19,500	5,000	24,500	300	240-260

See footnotes at end of table.

Table 17.—Supply &amp; Utilization, continued

	Area		Harvested	Yield	Production	Total supply	Feed and residual	Other domestic use	Exports	Total use	Ending stocks	Farm price
	Set aside	Planted										
	3/					4/						5/
	Mil. acres			Lb./acre			Mil. bales					Cts./lb.
Cotton 11/												
1983/84	6.8	7.9	7.3	508	7.8	15.7	--	5.9	6.8	12.7	2.8	65.30
1984/85	2.5	11.1	10.4	600	13.0	15.8	--	5.5	6.2	11.8	4.1	58.70
1985/86	3.6	10.7	10.2	630	13.4	17.6	--	6.4	2.0	8.4	9.4	56.50
1986/87*	3.4	10.0	8.5	552	9.7	19.1	--	7.4	6.7	14.1	5.0	52.40
1987/88*	3.2	10.4	10.0	706	14.8	19.8	--	7.6	6.6	14.2	5.8	64.30
1988/89*	1.6	12.5	11.9	623	15.4	21.2	--	6.9	5.2	12.1	9.2	--

\*February 9, 1988 Supply and Demand Estimates. 1/ Marketing year beginning June 1 for wheat, barley, & oats, August 1 for cotton & rice, September 1 for soybeans, corn, & sorghum, October 1 for soybean meal & soybean oil. 2/ Conversion factors: Hectare (ha.) = 2.471 acres, 1 metric ton = 2,204.622 pounds, 36.7437 bushels of wheat or soybeans, 39.3679 bushels of corn or sorghum, 45.9296 bushels of barley, 68.8944 bushels of oats, 22.046 cwt of rice, and 4.59 480-pound bales of cotton. 3/ Includes diversion, PIK, & acreage reduction programs. 4/ Includes imports. 5/ Market average prices do not include an allowance for loans outstanding & Government purchases. 6/ Residual included in domestic use. 7/ Includes seed. 8/ Average of crude soybean oil, Decatur. 9/ Includes 196 million pounds in imports for 1987/88 & 300 million in 1988/89. 10/ Average of 44 percent, Decatur. 11/ Upland & extra long staple. Stock estimates based on Census Bureau data, resulting in an unaccounted difference between supply & use estimates & changes in ending stocks. -- = not available.

Information contact: Commodity Economics Division, Crops Branch, (202) 786-1840.

Table 18.—Food Grains

	Marketing year 1/				1987	1988				
	1984/85	1985/86	1986/87	1987/88	Dec	Aug	Sept	Oct	Nov	Dec
Wholesale prices										
Wheat, No. 1 HRW										
Kansas City (\$/bu.) 2/	3.74	3.28	2.72	2.96	3.10	3.78	4.05	4.13	4.18	4.2
Wheat, DNS										
Minneapolis (\$/bu.) 2/	3.70	3.25	2.62	2.92	2.96	4.09	4.16	4.17	4.09	4.2
Rice, S.W. La. (\$/cwt) 3/	17.98	16.11	10.25	19.25	19.70	16.65	16.05	14.50	14.50	14.0
Wheat										
Exports (mil. bu.)	1,424	915	1,004	1,592	79	114	130	102	98	--
Mill grind (mil. bu.)	676	703	755	753	62	69	65	69	69	63
Wheat flour production (mil. cwt)	301	314	335	336	28	31	29	31	31	28
Rice										
Exports (mil. cwt, rough equiv.)	62.1	58.7	84.2	72.2	4.9	3.6	5.4	5.5	7.5	--
	Marketing year 1/				1987	1988				
	1985/86	1986/87	1987/88	Mar-May	Jun-Aug	Sept-Nov	Dec-Feb	Mar-May	Jun-Aug	Sept-Nov
Wheat										
Stocks, beginning (mil. bu.)	1,425	1,905	1,821	2,250.4	1,820.9	2,988.5	2,505.3	1,923.4	1,255.7	2,239.6
Domestic use										
Food (mil. bu.)	674	696	719	174.3	179.3	191.1	168.6	180.0	183.0	197.0
Seed, feed & residual (mil. bu.) 4/	372	497	378	45.7	355.8	-11.4	2.9	30.6	290.4	45.6
Exports (mil. bu.)	915	1,004	1,592	216.8	409.9	308.5	413.1	460.6	363.4	318.6

1/ Beginning June 1 for wheat & August 1 for rice. 2/ Ordinary protein. 3/ Long grain, milled basis. 4/ Residual includes feed use. -- = not available.

Information contacts: Ed Allen & Janet Livezey (202) 786-1840.

Table 19.—Cotton

	Marketing year 1/				1987	1988				
	1984/85	1985/86	1986/87	1987/88	Dec	Aug	Sept	Oct	Nov	Dec
U.S. price, SLM, 1-1/16 in. (cts./lb.) 2/	60.5	60.0	53.2	63.1	62.3	55.2	51.3	52.2	53.4	54.8
Northern Europe prices										
Index (cts./lb.) 3/	69.2	48.9	62.0	72.7	75.3	57.7	56.8	57.6	58.6	61.3
U.S. M 1-3/32 in. (cts./lb.) 4/	73.9	64.8	61.8	76.3	75.0	60.8	60.5	62.1	63.9	65.8
U.S. mill consumpt. (1,000 bales)	5,545	6,399	7,452	7,617	582	676	618	588	581	495
Exports (thou bales)	6,201	1,969	6,684	6,582	721	265	265	235	398	556
Stocks, beginning (1,000 bales)	2,775	4,102	9,348	5,026	11,946	5,771	5,655	6,286	10,230	13,621

1/ Beginning August 1. 2/ Average spot market. 3/ Liverpool Outlook (A) index; average of five lowest priced of 11 selected growths. 4/ Memphis territory growths.

Information contact: Bob Skinner (202) 786-1840.



Table 20.—Feed Grains

	Marketing year 1/				1987	1988				
	1984/85	1985/86	1986/87	1987/88	Dec	Aug	Sept	Oct	Nov	Dec
<b>Wholesale prices</b>										
Corn, no. 2 yellow, Chicago (\$/bu.)	2.79	2.35	1.64	2.14	1.89	2.79	2.79	2.81	2.65	2.69
Sorghum, no. 2 yellow, Kansas City (\$/cwt)	4.46	3.72	2.73	3.40	2.90	4.28	4.27	4.17	4.00	4.23
Barley, feed, Duluth (\$/bu.) 2/	2.09	1.53	1.44	1.78	1.74	2.08	2.24	2.32	2.27	2.14
Barley, malting, Minneapolis (\$/bu.)	2.55	2.24	1.89	2.04	2.01	4.25	4.40	4.39	4.14	3.82
<b>Exports 3/</b>										
Corn (mil. bu.)	1,865	1,241	1,504	1,732	149.3	153.2	154.4	174.0	151.0	..
Feed grains (mil. metric tons) 4/	56.6	36.6	46.3	52.6	3.8	4.3	4.8	4.9	4.4	..
	Marketing year 1/				1987	1988				
	1984/85	1985/86	1986/87	1987/88	Jun-Aug	Sept-Nov	Dec-Feb	Mar-May	Jun-Aug	Sept-Nov
<b>Corn</b>										
Stocks, beginning (mil. bu.)	1,006	1,648	4,040	4,882	6,332	4,882	9,769	7,635	5,836	4,260
<b>Domestic use</b>										
Feed (mil. bu.)	4,079	4,095	4,714	4,746	768	1,488	1,444	960	839	1,389
Food, seed, ind. (mil. bu.)	1,091	1,160	1,192	1,224	315	292	282	330	323	289
Exports (mil. bu.)	1,865	1,241	1,504	1,720	368	398	408	514	414	453.0
Total use (mil. bu.)	7,036	6,496	7,410	7,690	1,451	2,178	2,134	1,804	1,577	2,188.5

1/ September 1 for corn & sorghum; June 1 for oats & barley. 2/ Beginning March 1987 reporting point changed from Minneapolis to Duluth. 3/ Excludes products. 4/ Aggregated data for corn, sorghum, oats, & barley. .. = not available.

Information contact: James Cole (202) 786-1840.

Table 21.—Fats &amp; Oils

	Marketing year *				1987	1988				
	1984/85	1985/86	1986/87	1987/88	Nov	July	Aug	Sept	Oct	Nov
<b>Soybeans</b>										
Wholesale price, no. 1 yellow, Chicago (\$/bu.)	5.88	5.20	5.03	6.67	5.53	8.55	8.25	8.33	7.82	7.57
Crushings (mil. bu.)	1,030.5	1,052.8	1,178.8	1,174.5	111.2	88.0	78.3	79.9	94.4	101.0
Exports (mil. bu.)	598.2	740.7	756.9	801.6	100.4	30.4	37.2	26.9	50.2	61.3
Stocks, beginning (mil. bu.)	175.7	316.0	536.0	436.0	158.5	90.1	66.2	59.7	61.4	136.6
<b>Soybean oil</b>										
Wholesale price, crude, Decatur (cts./lb.)	29.52	18.02	15.36	22.92	17.55	29.65	27.16	25.55	23.42	21.55
Production (mil. lb.)	11,467.9	11,617.3	12,783.1	12,974.5	1,207.1	994.2	878.6	901.3	1,047.4	1,108.5
Domestic disp. (mil. lb.)	9,888.5	10,045.9	10,820.2	10,734.1	895.1	994.7	791.5	838.2	893.4	765.1
Exports (mil. lb.)	1,659.9	1,257.3	1,184.5	1,873.2	139.0	157.2	78.1	183.2	200.1	110.6
Stocks, beginning (mil. lb.)	720.5	632.5	946.6	1,725.0	1,660.6	2,361.0	2,203.3	2,212.4	2,092.2	2,046.2
<b>Soybean meal</b>										
Wholesale price, 44% protein, Decatur (\$/ton)	125.46	154.88	162.61	221.90	206.60	255.60	255.10	264.90	259.75	248.20
Production (1,000 ton)	24,529.3	24,951.3	27,758.8	28,060.2	2,667.8	2,110.3	1,872.5	1,897.8	2,235.5	2,399.4
Domestic disp. (1,000 ton)	19,481.3	19,117.2	20,387.4	21,275.9	2,113.8	1,666.2	1,759.7	1,567.9	1,609.4	1,962.7
Exports (1,000 ton)	4,916.5	6,009.3	7,343.0	6,871.0	509.8	301.1	285.6	441.0	511.8	409.0
Stocks, beginning (1,000 ton)	255.4	386.9	211.7	240.2	267.6	294.4	437.4	264.6	153.5	267.8
<b>Margarine, wholesale price, Chicago, white (cts./lb.)</b>										
	55.5	51.2	40.3	40.3	42.65	58.81	58.06	57.33	56.33	55.39

\* Beginning September 1 for soybeans; October 1 for soybean meal & oil; calendar year for margarine.

Information contacts: Roger Hoskin (202) 786-1840, Tom Bickerton (202) 786-1824.

Table 22.—Farm Programs, Price Supports, Participation &amp; Payment Rates\*

	Target price	Loan rate	Findley loan rate	Payment rates		PIK	Base acres	Program 1/	Participation rate 2/
				Deficiency	Paid land diversion				
			\$/bu.			Percent 3/	Mil. acres		Percent of base
Wheat									
1983/84	4.30	3.65		.65	2.70	95	90.9	15/5/10-30	78/78/51
1984/85	4.38	3.30		1.00	2.70	85	94.0	20/10/10-20	60/60/20
1985/86	4.38	3.30		1.08	2.70		94.0	20/10/0	73
1986/87 4/	4.38	3.00	2.40	1.98	2.00	1.10	92.2	22.5/2.5/5-10	85/85/21
1987/88	4.38	2.85	2.28	1.78			91.7	27.5/0/0	87
1988/89	4.23	2.76	2.21	1.53			91.8	27.5/0/0	83
1989/90	4.10	2.58	2.06					10/0/0	
			\$/cwt						
Rice									
1983/84	11.40	8.14		2.77	2.70	80	3.95	15/5/10-30	98/98/87
1984/85	11.90	8.00		3.76			4.16	25/0/0	85
1985/86	11.90	8.00	5/3.16	3.90	3.50		4.23	20/15/0	90
1986/87 4/	11.90	7.20	5/3.82	4.70			4.20	35/0/0	95
1987/88	11.66	6.84	5/5.72	4.82			4.18	35/0/0	95
1988/89	11.15	6.63	5/4.80	1.65			4.17	25/0/0	92
1989/90	10.80								
			\$/bu.						
Corn									
1983/84	2.86	2.65		0	1.50	80	82.6	10/10/10-30	71/71/60
1984/85	3.03	2.55		.43			80.8	10/0/0	54
1985/86	3.03	2.55		.48			84.2	10/0/0	69
1986/87 4/	3.03	2.40	1.92	1.11	.73		81.9	17.5/2.5/0	86
1987/88	3.03	2.28	1.82	1.09	2.00		83.3	20/15/0	90
1988/89	2.93	2.21	1.77	6/ 1.10	1.75			20/10/0; 0/92	90
1989/90	2.84	2.06	1.65					10/0/0; 0/92	
			\$/bu.						
Sorghum									
1983/84	2.72	2.52		0	1.50	80	18.0	7/ (same)	72/72/53
1984/85	2.88	2.42		.46			18.2		42
1985/86	2.88	2.42		.46			19.3		55
1986/87 4/	2.88	2.28	1.82	1.06	.65		19.0		75
1987/88	2.88	2.18	1.74	1.14	1.90		17.4		83/42
1988/89	2.78	2.10	1.68	1.08	1.65		17.0		81
1989/90	2.70	1.96	1.57						
			\$/bu.						
Barley									
1983/84	2.60	2.16		.21	1.00		11.0	7/ (same)	55/55/0
1984/85	2.60	2.08		.26			11.6		44
1985/86	2.60	2.08		.52			13.3		57
1986/87 4/	2.60	1.95	1.56	.99	.57		12.4		72
1987/88	2.60	1.86	1.49	.79	1.60		12.9		84

1/ Percentage of base acres that farmers participating in Acreage Reduction Programs/Paid Land Diversion/PLK were required to devote to conserving uses to receive program benefits. In addition to the percentages shown for 1983/84, farmers had the option of submitting bids to retire their entire base acreages. 2/ Percentage of base acres enrolled in Acreage Reduction Programs/Paid Land Diversion/PLK. 3/ Percent of program yield, except 1986/87 wheat, which is dollars per bushel. 1983 & 1984 PLK rates apply only to the 10-30 and 10-20 portions, respectively. 4/ Rates for payments received in cash were reduced by 4.3 percent in 1986/87 due to Gramm-Rudman-Hollings. 5/ Annual average world market price. 6/ Guaranteed to farmers signed up for 0/52. 7/ The sorghum, oats, & barley programs were the same as for corn each year except 1983/84, when PLK was not offered on barley & oats, & in 1988 for oats. 8/ There are no target prices, acreage programs, or payment rates for soybeans. 9/ Loan rate is not to be announced prior to August 1, 1989. 10/ Loan repayment rate. 11/ Loans may be repaid at the lower of the loan rate or world market prices.

Information contact: James Cole (202) 786-1840.



Table 23.—Fruit

	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988 F
Citrus 1/												
Production (1,000 ton)	14,255	13,329	16,484	15,105	12,057	13,608	10,792	10,525	11,051	11,968	12,641	13,247
Per capita consumpt. (lbs.) 2/	115.1	107.5	108.4	112.6	104.4	109.3	119.9	102.9	109.1	118.0	114.9	--
Noncitrus 3/												
Production (1,000 tons)	12,274	12,460	13,689	15,152	12,961	14,217	14,154	14,292	14,189	13,917	16,008	15,271
Per capita consumpt. (lbs.) 2/	84.5	83.0	85.7	87.3	88.0	89.0	88.9	93.7	92.3	95.7	101.9	--
	1988											
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
F.o.b. shipping point prices												
Apples (\$/carton) 4/	7.75	11.50	11.08	10.96	10.98	14.21	23.87	23.05	20.45	13.80	12.15	12.63
Pears (\$/box) 5/	9.26	11.18	8.94	12.88	15.14	17.50	--	--	--	--	12.48	12.33
Oranges (\$/box) 6/	5.64	6.30	6.24	6.79	8.25	8.42	6.41	4.90	4.17	5.48	5.82	6.50
Grapefruit (\$/box) 6/	5.63	5.45	5.02	4.92	4.53	3.36	4.85	4.09	7.34	7.57	4.77	4.71
Stocks, ending												
Fresh apples (mil. lbs.)	3,158.9	2,417.4	1,584.1	1,092.7	552.2	248.1	95.0	5.1	1,857.7	4,601.8	3,904.3	3,265.2
Fresh pears (mil. lbs.)	198.4	148.4	99.7	49.2	17.9	2.7	--	117.6	434.0	425.7	368.3	295.6
Frozen fruits (mil. lbs.)	790.4	720.1	634.6	593.3	548.5	657.3	864.0	981.4	997.5	1,116.0	1,011.8	938.3
Frozen orange juice (mil. lbs.)	980.4	1,073.1	1,004.1	1,018.7	1,120.1	1,154.7	1,001.8	862.5	693.1	639.7	587.7	760.4
1/ Crop year beginning with year indicated. 2/ Per capita consumption for total U.S. population, including military consumption of both fresh and processed fruit in fresh weight equivalent. 3/ Calendar year. 4/ Red delicious, Washington, extra fancy, carton tray pack, 80-113's. 5/ D'Anjou, Washington, standard box wrapped, U.S. no. 1, 90-135's. 6/ U.S. equivalent on-tree returns.												
F = forecast. -- = not available.												
Information contact: Sen Huang (202) 786-1885.												

Table 24.—Vegetables

	Calendar year											
	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988		
Production												
Total vegetables (1,000 cwt) 1/	413,925	381,370	379,123	431,515	403,320	457,392	453,769	445,436	462,402	--		
Fresh (1,000 cwt) 1/ 2/	190,859	190,228	194,694	207,924	197,919	217,132	217,932	216,267	218,190	--		
Processed (tons) 3/	11,153,300	9,557,100	9,221,460	11,179,590	10,270,050	12,013,020	11,791,860	11,616,560	12,210,580	--		
Mushrooms (1,000 lbs.)	470,069	469,576	517,146	490,826	561,531	595,681	587,956	614,393	631,690	--		
Potatoes (1,000 cwt)	342,447	302,857	338,591	355,131	333,911	362,612	407,109	361,511	385,462	349,973		
Sweetpotatoes (1,000 cwt)	13,370	10,953	12,799	14,833	12,083	12,986	14,853	12,674	12,064	11,832		
Dry edible beans (1,000 cwt)	20,552	26,729	32,751	25,563	15,520	21,070	22,175	22,886	25,909	19,230		
	1988											
	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov
Shipments												
Fresh (1,000 cwt) 4/	18,964	17,690	23,141	18,271	18,927	26,488	36,998	21,631	21,791	15,215	16,475	20,999
Potatoes (1,000 cwt)	10,685	11,759	12,702	8,890	14,970	12,356	12,791	7,461	10,014	9,963	9,958	13,796
Sweetpotatoes (1,000 cwt)	518	354	343	366	218	174	127	91	212	262	305	876
1/ 1983 data are not comparable with 1984 & 1985. 2/ Estimate reinstated for asparagus with the 1984 crop; all other years also include broccoli, carrots, cauliflower, celery, sweet corn, lettuce, honeydews, onions, & tomatoes. 3/ Estimates reinstated for cucumbers with the 1984 crop; all other years also include snap beans, sweet corn, green peas, & tomatoes. 4/ Includes snap beans, broccoli, cabbage, carrots, cauliflower, celery, sweet corn, cucumbers, eggplant, lettuce, onions, bell peppers, squash, tomatoes, cantaloupes, honeydews, & watermelons. -- = not available.												
Information contacts: Shannon Hamm or Cathy Greene (202) 786-1884.												

Table 25.—Other Commodities

	Annual					1987	1988				
	1984	1985	1986	1987	1988	Oct-Dec	Jan-Mar	Apr-June	July-Sept	Oct-Dec	
Sugar											
Production 1/	5,890	5,969	6,257	7,309	7,069	3,653	2,082	772	642	3,573	
Deliveries 1/	8,454	8,035	7,786	8,167	8,188	2,112	1,951	1,983	2,147	2,107	
Stocks, ending 1/	3,005	3,126	3,225	3,195	--	3,195	3,567	2,467	1,316	--	
Coffee											
Composite green price N.Y. (cts./lb.)	142.95	137.46	185.18	109.14	115.59	116.12	121.98	121.44	114.20	120.75	
Imports, green bean equiv. (mil. lbs.) 2/	2,411	2,550	2,596	2,638	2,100	640	585	450	595	470 P	
	Annual					1987	1988				
	1985	1986	1987	Nov	June	July	Aug	Sept	Oct	Nov	
Tobacco											
Prices at auctions 3/											
Flue-cured (\$/lb.)	1.72	1.52	--	1.32	NQ	NQ	1.47	1.67	1.71	1.61	
Burley (\$/lb.)	1.59	1.57	--	1.59	NQ	NQ	NQ	NQ	NQ	1.63	
Domestic consumption 4/											
Cigarettes (bil.)	594.0	584.0	577.0	52.6	52.7	31.4	34.4	51.9	--	--	
Large cigars (mil.)	3,226	3,090	2,757	213.6	260.4	181.7	234.4	245.4	--	--	
1/ 1,000 short tons, raw value. Quarterly data shown at end of each quarter. 2/ Net imports of green & processed coffee. 3/ Crop year July-June for flue-cured, Oct.-Sept. for burley. 4/ Taxable removals. P = preliminary.											
-- = not available. NQ = no quote.											
Information contacts: sugar, Peter Buzzanell (202) 786-1888, coffee, Fred Gray (202) 786-1888, tobacco, Verner Grise (202) 786-1890.											

**Table 26.—World Supply & Utilization of Major Crops, Livestock, & Products**

	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88 P	1988/89 F
	Million units						
<b>Wheat</b>							
Area (hectares)	237.3	228.8	231.0	229.3	227.8	219.5	218.6
Production (metric tons)	477.3	489.3	512.0	499.8	530.2	504.2	500.5
Exports (metric tons) 1/	98.7	102.0	107.0	85.0	90.7	105.4	95.4
Consumption (metric tons) 2/	460.1	474.1	493.1	495.9	522.9	534.1	535.3
Ending stocks (metric tons) 3/	130.0	145.2	164.0	167.9	175.2	145.4	110.6
<b>Coarse grains</b>							
Area (hectares)	338.7	335.1	334.7	341.2	337.3	323.0	326.6
Production (metric tons)	783.9	687.6	815.7	843.6	835.4	791.4	718.8
Exports (metric tons) 1/	90.0	93.4	100.4	83.2	84.1	83.0	94.7
Consumption (metric tons) 2/	753.3	758.8	782.5	779.3	811.5	813.5	802.0
Ending stocks (metric tons) 3/	181.4	110.7	143.9	208.2	232.0	209.9	126.7
<b>Rice, milled</b>							
Area (hectares)	140.6	144.2	144.3	144.9	145.1	142.9	145.8
Production (metric tons)	286.5	307.9	318.8	320.0	318.6	309.0	324.2
Exports (metric tons) 4/	11.9	12.6	11.5	12.7	12.7	12.0	12.1
Consumption (metric tons) 2/	286.5	304.5	310.6	320.7	322.7	317.2	324.5
Ending stocks (metric tons) 3/	43.3	46.6	54.9	54.2	50.0	41.8	41.5
<b>Total grains</b>							
Area (hectares)	716.6	708.1	710.0	715.4	710.2	685.4	691.0
Production (metric tons)	1,547.7	1,484.8	1,646.5	1,663.4	1,684.2	1,604.6	1,543.5
Exports (metric tons) 1/	200.6	208.0	218.9	180.9	187.5	200.4	202.2
Consumption (metric tons) 2/	1,499.9	1,537.4	1,586.2	1,595.9	1,657.1	1,664.8	1,661.8
Ending stocks (metric tons) 3/	354.7	302.5	362.8	430.3	457.2	397.1	278.8
<b>Oilseeds</b>							
Crush (metric tons)	143.5	135.8	150.6	154.8	160.9	164.7	164.7
Production (metric tons)	178.2	165.0	191.0	196.0	194.3	206.5	198.1
Exports (metric tons)	35.2	33.0	33.1	34.6	37.7	39.2	34.1
Ending stocks (metric tons)	20.5	15.7	21.1	26.8	23.3	23.8	17.5
<b>Meals</b>							
Production (metric tons)	98.1	92.5	101.8	104.8	109.9	112.7	111.4
Exports (metric tons)	31.6	29.7	32.3	34.4	36.6	36.0	36.7
<b>Oils</b>							
Production (metric tons)	43.4	42.1	46.2	49.4	50.3	52.4	52.9
Exports (metric tons)	14.0	13.7	15.6	16.4	16.9	17.3	17.4
<b>Cotton</b>							
Area (hectares)	31.4	31.0	33.9	31.9	29.9	32.2	34.3
Production (bales)	68.1	65.6	88.2	79.6	70.4	80.5	83.7
Exports (bales)	19.5	19.2	20.2	20.2	26.0	23.6	24.3
Consumption (bales)	68.3	68.3	70.0	75.8	82.4	83.3	82.6
Ending stocks (bales)	25.2	24.0	42.4	47.2	34.5	32.2	33.0
	1983	1984	1985	1986	1987	1988 F	1989 F
<b>Red meat</b>							
Production (metric tons)	97.5	99.6	103.5	106.4	108.8	109.9	110.4
Consumption (metric tons)	95.8	97.6	101.5	105.3	107.1	108.6	109.1
Exports (metric tons) 1/	5.9	5.9	6.2	6.6	6.6	6.7	6.8
<b>Poultry</b>							
Production (metric tons)	24.4	25.2	26.2	27.4	29.2	30.1	31.2
Consumption (metric tons)	24.3	24.8	26.0	27.0	28.8	29.7	30.8
Exports (metric tons) 1/	1.3	1.3	1.2	1.3	1.5	1.5	1.5
<b>Dairy</b>							
Milk production (metric tons)	413.0	413.5	419.1	426.8	427.1	428.7	432.4

1/ Excludes intra-EC trade. 2/ Where stocks data not available (excluding USSR), consumption includes stock changes.  
 3/ Stocks data are based on differing marketing years & do not represent levels at a given date. Data not available for all countries; includes estimated change in USSR grain stocks but not absolute level. 4/ Calendar year data. 1983 data correspond with 1982/83, etc. P = preliminary. F = forecast.

Information contacts: Frederic Surls (202) 786-1824; red meat & poultry, Linda Bailey (202) 786-1286; dairy, Sara Short (202) 786-1769.



# U.S. Agricultural Trade

**Table 27.—Prices of Principal U.S. Agricultural Trade Products**

	Annual			1987	1988					
	1986	1987	1988	Dec	July	Aug	Sept	Oct	Nov	Dec
Export commodities										
Wheat, f.o.b. vessel, Gulf ports (\$/bu.)	3.19	3.11	3.97	3.43	4.10	4.10	4.36	4.42	4.48	4.55
Corn, f.o.b. vessel, Gulf ports (\$/bu.)	2.27	1.95	2.73	2.13	3.31	3.03	3.10	3.08	2.90	3.00
Grain sorghum, f.o.b. vessel, Gulf ports (\$/bu.)	2.16	1.88	2.52	1.98	3.02	2.78	2.81	2.76	2.61	2.79
Soybeans, f.o.b. vessel, Gulf ports (\$/bu.)	5.45	5.55	7.81	6.16	9.11	8.77	8.73	8.10	7.84	8.07
Soybean oil, Decatur (cts./lb.)	16.36	15.85	23.52	18.77	29.31	26.74	25.06	23.13	21.31	21.75
Soybean meal, Decatur (\$/ton)	157.62	175.57	234.75	214.51	257.53	257.46	265.02	258.06	248.95	246.48
Cotton, 8-market avg. spot (cts./lb.)	53.47	64.35	57.25	62.25	57.40	55.20	51.26	52.20	54.40	54.85
Tobacco, avg. price at auction (cts./lb.)	153.96	144.34	148.95	144.79	144.44	144.44	156.75	159.62	162.15	162.38
Rice, f.o.b. mill, Houston (\$/cwt)	14.60	13.15	19.60	21.00	20.50	18.20	16.00	15.25	15.00	15.00
Inedible tallow, Chicago (cts./lb.)	9.03	13.79	16.64	15.56	18.81	17.44	16.00	15.02	14.18	16.33
Import commodities										
Coffee, N.Y. spot (\$/lb.)	2.01	1.09	1.21	1.19	1.21	1.11	1.15	1.13	1.17	1.31
Rubber, N.Y. spot (cts./lb.)	42.87	50.65	59.20	54.01	66.05	63.84	60.08	55.17	52.98	54.13
Cocoa beans, N.Y. (\$/lb.)	.88	.87	.69	.82	.71	.63	.54	.58	.64	.66

Information contact: Mary Teymourian (202) 786-1820.

**Table 28.—Indexes of Real Trade-Weighted Dollar Exchange Rates <sup>1</sup>**

	1988											1989
	Feb	Mar	Apr	May	June P	July P	Aug P	Sept P	Oct P	Nov P	Dec P	Jan P
	1980=100											
Total U.S. trade 2/	101.6	100.3	99.4	100.3	103.6	108.4	110.5	110.5	107.6	103.5	103.3	103.3
Agricultural trade												
U.S. markets	104.2	102.8	101.6	101.7	103.3	105.5	106.2	107.5	109.2	102.4	102.1	103.8
U.S. competitors	126.7	125.8	124.7	124.6	125.1	126.6	128.1	128.8	127.7	126.1	125.8	126.0
Wheat												
U.S. markets	115.8	114.6	112.9	113.0	113.3	115.5	115.8	119.4	130.6	116.6	117.4	124.2
U.S. competitors	122.2	121.0	120.0	119.3	119.2	119.7	120.7	119.7	116.6	114.2	112.4	111.4
Soybeans												
U.S. markets	98.8	97.4	96.5	97.0	99.5	103.4	104.8	104.7	102.1	98.5	98.3	98.2
U.S. competitors	185.5	188.4	187.1	188.5	190.4	186.3	185.9	177.9	175.6	178.4	176.5	174.4
Corn												
U.S. markets	91.8	90.7	89.3	89.5	91.9	93.5	93.9	94.4	91.7	88.6	88.0	87.3
U.S. competitors	162.8	163.9	163.6	164.8	169.6	170.7	171.6	164.8	159.3	155.0	153.0	150.5
Cotton												
U.S. markets	100.0	98.5	97.7	97.7	98.9	101.4	102.0	102.3	100.2	97.2	96.7	96.4
U.S. competitors	109.2	107.9	103.8	102.8	101.0	100.7	99.5	102.1	99.6	97.9	97.1	96.9

<sup>1/</sup> Real indexes adjust nominal exchange rates for differences in rates of inflation, to avoid the distortion caused by high-inflation countries. A higher value means the dollar has appreciated. See the October 1988 issue of Agricultural Outlook for a discussion of the calculations and the weights used. <sup>2/</sup> Federal Reserve Board index of trade-weighted value of the U.S. dollar against 10 major currencies. Weights are based on relative importance in world financial markets. P = preliminary.

Information contact: Tim Baxter, David Stallings (202) 786-1706.

**Table 29.—Trade Balance**

	Fiscal year 1/									NOV
	1981	1982	1983	1984	1985	1986	1987	1988	1989 F	1988
	\$ million									
Exports										
Agricultural	43,780	39,097	34,769	38,027	31,201	26,309	27,876	35,334	36,500	3,350
Nonagricultural	185,423	176,308	159,373	170,014	179,236	176,628	202,911	259,013	--	23,108
Total 2/	229,203	215,405	194,142	208,041	210,437	202,937	230,787	294,347	--	26,458
Imports										
Agricultural	17,218	15,485	16,373	18,916	19,740	20,875	20,650	21,011	21,000	1,739
Nonagricultural	237,469	233,349	230,527	297,736	313,722	342,855	367,374	409,141	--	36,242
Total 3/	254,687	248,834	246,900	316,652	333,462	363,730	388,024	430,152	--	37,981
Trade balance										
Agricultural	26,562	23,612	18,396	19,111	11,461	5,434	7,226	14,323	15,500	1,611
Nonagricultural	-52,046	-57,041	-71,154	-127,722	-134,486	-166,227	-164,463	-150,128	--	-13,134
Total	-25,484	-33,429	-52,758	-108,611	-123,025	-160,793	-157,237	-135,805	--	-11,523

<sup>1/</sup> Fiscal years begin October 1 & end September 30. Fiscal year 1988 began Oct. 1, 1987 & ended Sept. 30, 1988. <sup>2/</sup> Domestic exports including Department of Defense shipments (F.A.S. value). <sup>3/</sup> Imports for consumption (customs value). F = forecast. -- = not available.

Information contact: Stephen MacDonald (202) 786-1822.

Table 30.—U.S. Agricultural Exports &amp; Imports

	Fiscal year*				Nov	Fiscal year*				Nov
	1986	1987	1988	1989 F	1988	1986	1987	1988	1989 F	1988
	1,000 units					% million				
EXPORTS										
Animals, live (no.) 1/	570	275	1,082	--	481	344	331	452	--	73
Meats & preps., excl. poultry (mt)	451	548	631	2/500	69	1,012	1,300	1,797	--	216
Dairy products (mt)	480	445	388	--	39	431	491	536	500	48
Poultry meats (mt)	265	376	390	400	35	282	406	424	--	42
Fats, oils, & greases (mt)	1,355	1,220	1,362	3/1,300	130	477	417	545	--	52
Hides & skins incl. furskins	--	--	--	--	--	1,440	1,666	1,838	--	144
Cattle hides, whole (no.) 1/	25,596	24,333	23,282	--	2,118	1,131	1,254	1,457	--	119
Mink pelts (no.) 1/	2,697	2,760	2,455	--	77	65	103	88	--	3
Grains & feeds (mt)	74,358	90,211	108,905	--	8,364	9,472	9,059	12,581	4/15,200	1,252
Wheat (mt)	25,501	28,204	40,501	39,000	2,539	3,260	2,877	4,467	5/5,900	396
Wheat flour (mt)	1,094	1,305	1,046	1,200	85	203	207	171	--	14
Rice (mt)	2,382	2,454	2,173	2,400	241	648	551	731	700	81
Feed grains, incl. products (mt)	36,236	47,606	53,308	51,500	4,353	3,817	3,752	5,209	6,400	552
Feeds & fodders (mt)	8,392	10,113	11,233	6/11,000	1,103	1,286	1,455	1,719	--	185
Other grain products (mt)	1,015	755	908	--	68	332	285	361	--	33
Fruits, nuts, and preps. (mt)	2,003	2,146	2,409	--	240	1,766	2,050	2,368	--	229
Fruit juices incl. froz. (1,000 liters) 1/	3,652	4,364	5,497	--	340	148	185	252	--	17
Vegetables & preps. (mt)	1,442	1,629	1,826	--	169	997	1,176	1,282	--	134
Tobacco, unmanufactured (mt)	224	224	229	200	21	1,318	1,203	1,296	1,200	129
Cotton, excl. linters (mt)	482	1,306	1,388	1,100	87	678	1,419	2,136	1,500	122
Seeds (mt)	269	305	286	--	31	367	371	415	400	46
Sugar, cane or beet (mt)	375	582	318	--	22	75	113	98	--	7
Oilseeds & products (mt)	27,583	29,725	29,471	--	2,184	6,271	6,308	7,700	6,900	686
Oilseeds (mt)	20,684	21,905	21,366	--	1,690	4,394	4,423	5,238	--	507
Soybeans (mt)	20,139	21,394	20,908	15,400	1,667	4,174	4,205	5,008	4,600	488
Protein meal (mt)	5,614	6,786	6,406	4,100	393	1,132	1,347	1,502	1,100	114
Vegetable oils (mt)	1,284	1,035	1,699	--	100	746	538	961	--	65
Essential oils (mt)	7	8	9	--	1	105	111	120	--	10
Other	568	565	668	--	80	1,126	1,273	1,495	--	141
Total	109,862	129,290	148,280	136,000	11,472	26,309	27,876	35,334	36,500	3,350
IMPORTS										
Animals, live (no.) 1/	1,885	1,994	2,238	--	177	637	610	729	600	58
Meats & preps., excl. poultry (mt)	1,139	1,282	1,280	--	89	2,248	2,797	2,788	--	198
Beef & veal (mt)	693	778	779	750	53	1,252	1,575	1,681	1,600	119
Pork (mt)	406	462	456	435	32	900	1,125	1,001	900	68
Dairy products (mt)	400	461	337	400	31	786	849	881	700	83
Poultry and products 1/	--	--	--	--	--	101	112	97	--	10
Fats, oils, & greases (mt)	22	21	20	--	1	17	18	19	--	1
Hides & skins, incl. furskins 1/	--	--	--	--	--	200	304	247	--	15
Wool, unmanufactured (mt)	53	2,233	703	--	4	160	201	292	--	27
Grains & feeds (mt)	2,311	2,336	3,050	2,800	284	668	727	868	900	96
Fruits, nuts, & preps., excl. juices (mt)	4,637	4,840	4,797	4,795	346	1,976	2,179	2,169	--	161
Bananas & plantains (mt)	3,042	3,106	3,030	3,050	247	740	817	820	900	70
Fruit juices (1,000 liters) 1/	31,539	34,059	26,754	29,000	3,031	698	728	767	--	97
Vegetables & preps. (mt)	2,199	2,446	2,521	2,500	192	1,560	1,509	1,593	1,600	130
Tobacco, unmanufactured (mt)	208	225	217	210	12	606	634	611	600	39
Cotton, unmanufactured (mt)	41	38	36	--	1	14	7	9	--	7/
Seeds (mt)	89	133	143	140	8	111	156	153	200	11
Nursery stock & cut flowers 1/	--	--	--	--	--	353	369	419	--	37
Sugar, cane or beet (mt)	1,905	1,492	1,069	--	90	654	497	368	--	33
Oilseeds & products (mt)	1,508	1,572	1,772	1,750	193	639	579	838	900	95
Oilseeds (mt)	197	165	208	--	32	69	56	71	--	11
Protein meal (mt)	138	245	253	--	30	15	30	42	--	6
Vegetable oils (mt)	1,173	1,162	1,311	--	132	555	493	725	--	77
Beverages excl. fruit juices (1,000 liters) 1/	15,488	15,547	15,583	--	1,252	1,848	1,923	2,008	--	190
Coffee, tea, cocoa, spices (mt)	1,940	1,915	1,842	--	127	6,099	4,868	4,274	--	287
Coffee, incl. products (mt)	1,223	1,206	1,050	1,090	75	4,400	3,233	2,600	3,000	193
Cocoa beans & products (mt)	507	503	562	530	35	1,189	1,087	1,164	1,100	59
Rubber & allied gums (mt)	801	824	846	840	78	615	714	949	800	95
Other	--	--	--	--	--	885	868	931	--	75
Total	--	--	--	--	--	20,875	20,650	21,011	21,000	1,739

\*Fiscal years begin Oct. 1 & end Sept. 30. Fiscal year 1988 began Oct. 1, 1987 & ended Sept. 30, 1988. 1/ Not included in total volume. 2/ Forecasts for footnoted items 2/-6/ are based on slightly different groups of commodities. Fiscal 1988 exports of categories used in the 1989 forecasts were 2/ 561,000 m. tons. 3/ 1.347 million dollars 4/ 12,743 million. 5/ 4,638 million, i.e. includes flour. 6/ 11.095 million m. tons. 7/ Less than \$500. F = forecast. -- = not available.

Information contact: Stephen MacDonald (202) 786-1822.



Table 31.—U.S. Agricultural Exports by Region

Region & country	Fiscal year*				Nov	Change from year* earlier				Nov
	1986	1987	1988	1989 F	1988	1986	1987	1988	1989 F	1988
	\$ million					Percent				
Western Europe	6,848	7,219	8,029	7,800	788	-5	5	11	-2	-5
European Community (EC-12)	6,432	6,787	7,513	7,300	742	-4	5	11	-3	-6
Belgium-Luxembourg	361	423	429	--	51	-23	17	1	--	13
France	431	495	565	--	62	9	15	14	--	-10
Germany, Fed. Rep.	1,001	1,266	1,306	--	74	11	26	3	--	-37
Italy	693	733	713	--	53	2	6	-3	--	-4
Netherlands	2,042	1,954	2,087	--	267	6	-4	7	--	27
United Kingdom	628	666	819	--	82	0	6	23	--	-6
Portugal	308	271	340	--	25	-39	-12	25	--	-56
Spain, incl. Canary Islands	723	658	848	--	97	-13	-9	29	--	-5
Other Western Europe	415	432	516	500	42	-19	4	20	0	14
Switzerland	128	145	191	--	13	-45	13	32	--	18
Eastern Europe	447	453	559	500	40	-16	1	23	-11	18
German Dem. Rep.	52	66	67	--	0	-36	27	0	--	-100
Poland	42	63	167	--	4	-66	50	165	--	-56
Yugoslavia	134	131	104	--	26	-2	-2	-21	--	333
Romania	112	115	93	--	2	27	3	-19	--	100
USSR	1,105	659	1,934	2,200	184	-56	-40	193	16	167
Asia	10,494	11,990	15,928	17,000	1,530	-12	14	33	7	21
West Asia (Mideast)	1,243	1,664	1,903	1,900	168	-14	34	14	0	19
Turkey	111	117	120	--	7	-13	5	3	--	-30
Iraq	335	528	735	900	84	-10	58	39	29	83
Israel	255	244	334	--	21	-15	-4	37	--	0
Saudi Arabia	335	489	464	400	34	-12	46	-5	-13	-31
South Asia	517	345	805	--	116	-14	-33	133	--	104
Bangladesh	94	111	107	--	13	-54	18	-3	--	-43
India	90	93	354	--	46	-30	3	281	--	360
Pakistan	285	98	276	400	55	25	-66	181	33	162
China	83	235	613	800	65	-65	183	161	33	-17
Japan	5,139	5,554	7,274	8,000	749	-9	8	31	10	24
Southeast Asia	724	708	1,015	--	60	-14	-2	43	--	-24
Indonesia	172	152	238	--	8	-16	-12	56	--	-64
Philippines	269	259	345	300	24	-6	-4	33	0	4
Other East Asia	2,788	3,485	4,318	4,600	371	-11	25	24	7	19
Taiwan	1,109	1,354	1,577	1,600	155	-17	22	16	0	38
Korea, Rep.	1,277	1,693	2,250	2,500	172	-9	33	33	11	15
Hong Kong	400	436	488	500	43	1	9	12	0	-12
Africa	2,134	1,784	2,272	2,400	174	-16	-16	27	6	6
North Africa	1,401	1,279	1,659	1,800	149	16	-9	30	8	32
Morocco	159	196	193	--	25	2	23	-2	--	127
Algeria	329	244	537	700	33	50	-26	120	30	-20
Egypt	875	761	786	900	90	14	-13	3	15	50
Sub-Saharan	733	505	613	600	26	-44	-31	21	0	-50
Nigeria	158	67	44	--	2	-57	-58	-35	--	-60
Rep. S. Africa	70	49	85	--	8	-63	-30	74	--	-27
Latin America & Caribbean	3,598	3,765	4,401	4,500	443	-21	5	17	2	45
Brazil	445	418	176	200	8	-20	-6	-58	0	-76
Caribbean Islands	752	829	867	--	84	-2	10	5	--	11
Central America	334	377	413	--	33	-7	13	10	--	0
Colombia	137	115	178	--	11	-42	-16	55	--	-8
Mexico	1,114	1,215	1,726	1,900	208	-29	9	42	10	142
Peru	108	140	174	--	9	2	30	24	--	-18
Venezuela	493	459	597	500	73	-32	-7	30	-16	128
Canada	1,466	1,776	1,973	2,000	162	-15	21	11	0	6
Oceania	216	230	238	200	33	6	6	3	0	57
Total	26,309	27,876	35,334	36,500	3,350	-16	6	27	3	18
Developed countries	13,954	15,031	17,883	18,200	1,750	-8	8	19	2	7
Less developed countries	10,719	11,498	14,346	14,800	1,311	-15	7	25	3	27
Centrally planned countries	1,636	1,347	3,106	3,500	289	-50	-18	131	13	60

\*Fiscal years begin Oct. 1 & end Sept. 30. Fiscal year 1988 began Oct. 1, 1987 & ended Sept. 30, 1988. F = forecast. -- = not available.

Note: Adjusted for transshipments through Canada.

Information Contact: Stephen MacDonald (202) 786-1822.

# Farm Income

Table 32.—Farm Income Statistics

	Calendar year										
	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988 F	1989 F
	\$ billion										
1. Farm receipts	133.8	142.0	144.1	147.1	141.1	146.8	149.1	140.2	143.7	155	153 to 159
Crops (incl. net CCC loans)	62.3	71.7	72.5	72.3	67.1	69.5	74.2	63.6	61.9	69	69 to 72
Livestock	69.2	68.0	69.2	70.3	69.4	73.0	69.8	71.5	76.2	80	79 to 82
Farm related 1/	2.2	2.3	2.5	4.5	4.5	4.4	5.0	5.1	5.6	6	5 to 7
2. Direct Government payments	1.4	1.3	1.9	3.5	9.3	8.4	7.7	11.8	16.7	14	10 to 12
Cash payments	1.4	1.3	1.9	3.5	4.1	4.0	7.6	8.1	6.5	8	7 to 9
Value of PJK commodities	0.0	0.0	0.0	0.0	5.2	4.5	0.1	3.7	10.2	6	2 to 4
3. Total gross farm income (4+5+6) 2/	150.7	149.3	166.4	163.5	153.1	174.9	166.2	159.8	169.8	170	182 to 187
4. Gross cash income (1+2)	135.1	143.3	146.0	150.6	150.4	155.2	156.8	152.0	160.4	169	165 to 169
5. Nonmoney income 3/	10.6	12.3	13.8	14.3	13.5	13.4	11.8	10.6	10.0	9	8 to 10
6. Value of inventory change	5.0	-6.3	6.5	-1.4	-10.9	6.3	-2.4	-2.8	-6	-8	8 to 10
7. Cash expenses 4/	101.7	109.1	113.2	112.8	113.5	116.6	110.2	100.6	103.3	111	115 to 118
8. Total expenses	123.3	133.1	139.4	140.0	140.4	142.7	134.0	122.3	123.5	132	136 to 140
9. Net cash income (4-7)	33.4	34.2	32.8	37.8	36.9	38.7	46.6	51.4	57.1	57	48 to 52
10. Net farm income (3-8)	27.4	16.1	26.9	23.5	12.7	32.2	32.3	37.5	46.3	39	44 to 48
Deflated (1982\$)	34.9	18.8	28.6	23.5	12.2	29.7	29.1	32.9	39.3	32	36 to 40
11. Off-farm income	33.8	34.7	35.8	36.4	37.0	38.9	42.6	44.6	46.8	49	48 to 51
12. Loan changes 5/: Real estate	13.0	9.9	9.1	3.8	2.3	-1.1	-6.0	-9.2	-7.7	-4	0 to 3
13.       5/: Non-real estate	11.2	5.3	6.5	3.4	0.9	-0.8	-9.6	-10.7	-4.9	1	2 to 3
14. Rental income plus monetary change	6.3	6.1	6.4	6.3	5.3	8.9	8.8	7.8	6.8	8	7 to 9
15. Capital expenditures 5/	20.1	18.0	16.8	13.3	12.7	12.5	9.6	8.5	9.8	10	9 to 11
16. Net cash flow (9+12+13+14-15)	43.8	37.6	37.8	38.1	32.7	33.1	30.2	30.8	41.4	53	50 to 54

1/ Income from machine hire, custom work, sales of forest products, & other miscellaneous cash sources. 2/ Numbers in parentheses indicate the combination of items required to calculate a given item. 3/ Value of home consumption of self-produced food & imputed gross rental value of farm dwellings. 4/ Excludes capital consumption, perquisites to hired labor, & farm household expenses. 5/ Excludes farm households. Totals may not add because of rounding. F = forecast.

Information contact: Andy Bernat (202) 786-1808.

Table 33.—Balance Sheet of the U.S. Farming Sector

	Calendar year 1/										
	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988 F	1989 F
	\$ billion										
<b>Assets</b>											
Real estate	706.2	782.9	784.7	748.8	739.6	639.6	558.6	510.1	522.6	553	560 to 570
Non-real estate	201.6	213.2	212.0	212.4	205.7	208.9	190.4	181.5	186.3	188	187 to 201
Livestock & poultry	61.4	60.6	53.5	53.0	49.7	49.6	46.3	47.6	57.6	61	60 to 64
Machinery & motor vehicles	85.8	93.1	101.4	102.0	100.8	96.9	87.6	80.3	73.9	74	74 to 78
Crops stored 2/	29.2	33.0	29.1	27.9	23.9	29.6	23.5	19.1	20.5	18	18 to 22
Financial assets	25.3	26.5	28.0	29.5	31.3	32.8	33.0	34.4	34.3	35	35 to 37
Total farm assets	907.8	996.1	996.7	961.2	945.3	848.5	749.0	691.6	708.9	741	755 to 765
<b>Liabilities</b>											
Real estate 3/	79.7	89.6	98.7	102.5	104.8	103.7	97.7	88.5	80.8	77	76 to 80
Non-real estate 4/	71.8	77.1	83.6	87.0	87.9	87.1	77.5	66.8	61.9	63	63 to 67
Total farm liabil.	151.6	166.8	182.3	189.5	192.7	190.8	175.2	155.3	142.7	139	139 to 147
Total farm equity	756.2	829.3	814.4	771.7	752.6	657.7	573.8	536.3	566.3	602	612 to 622
	Percent										
<b>Selected ratios</b>											
Debt-to-assets	16.7	16.7	18.3	19.7	20.4	22.5	23.4	22.5	20.1	18.8	18 to 20
Debt-to-equity	20.0	20.1	22.4	24.6	25.6	29.0	30.5	29.0	25.2	23.1	22 to 24
Debt-to-net cash income 454	454	488	556	497	523	493	376	302	250	241	280 to 290

1/ As of Dec. 31. 2/ Non-CCC crops held on farms plus value above loan rates for crops held under CCC. 3/ Excludes debt on operator dwellings, but includes CCC storage and drying facilities loans. 4/ Excludes debt for nonfarm purposes. F = forecast.

Information contacts: Ken Erickson or Jim Ryan (202) 786-1798.



Table 34.—Cash Receipts from Farm Marketings, by State

Region & State	Livestock & products				Crops 1/				Total 1/			
	1986	1987	Oct	Nov	1986	1987	Oct	Nov	1986	1987	Oct	Nov
			1988	1988			1988	1988			1988	1988

1/ Sales of farm products include receipts from commodities placed under CCC loans minus value of redemptions during the period. 2/ Estimates as of end of current month. Totals may not add because of rounding.

Information contact: Roger Strickland (202) 786-1804.

Table 35.—Cash Receipts from Farming

	Annual						1987	1988				
	1982	1983	1984	1985	1986	1987	Nov	July	Aug	Sept	Oct	Nov
	\$ million											
Farm marketings & CCC loans*	142,594	136,567	142,436	144,015	135,102	138,094	15,661	12,054	12,223	14,818	16,795	15,323
Livestock & products	70,257	69,438	72,966	69,842	71,548	76,218	6,737	6,428	6,671	7,315	7,277	6,917
Meat animals	40,917	38,893	40,832	38,589	39,122	44,716	3,952	3,426	3,867	4,457	4,414	3,911
Dairy products	18,234	18,763	17,944	18,063	17,753	17,829	1,447	1,426	1,434	1,435	1,532	1,531
Poultry & eggs	9,520	9,981	12,223	11,211	12,678	11,487	1,039	1,190	1,209	1,222	1,190	1,175
Other	1,586	1,801	1,967	1,979	1,994	2,187	299	386	161	201	141	301
Crops	72,338	67,129	69,469	74,173	63,554	61,876	8,924	5,626	5,552	7,504	9,518	8,405
Food grains	11,412	9,713	9,740	8,993	5,631	5,411	1,350	1,182	829	716	762	520
Feed crops	17,409	15,535	15,668	22,520	16,982	15,061	2,670	1,566	1,422	1,581	1,520	1,578
Cotton (lint & seed)	4,457	3,705	3,674	3,687	3,551	4,027	975	32	178	443	649	1,004
Tobacco	3,342	2,752	2,813	2,722	1,918	1,827	159	9	381	429	277	330
Oil-bearing crops	13,817	13,546	13,641	12,474	10,592	10,800	1,890	671	581	1,643	3,291	1,696
Vegetables & melons	8,063	8,459	9,138	8,558	8,630	9,223	432	667	925	964	922	544
Fruits & tree nuts	6,846	6,056	6,737	6,843	7,288	7,669	1,067	932	684	1,088	1,250	1,222
Other	6,993	7,365	8,060	8,378	8,962	9,658	1,380	567	550	839	847	1,489
Government payments	3,492	9,295	8,430	7,704	11,813	16,747	300	251	116	326	1,079	318
Total	146,086	145,862	150,866	151,719	146,915	154,841	15,961	12,305	12,339	15,144	17,874	15,641

\*Receipts from loans represent value of commodities placed under CCC loans minus value of redemptions during the month.

Information contact: Roger Strickland (202) 786-1804.

Table 36.—Farm Production Expenses

	Calendar year									
	1980	1981	1982	1983	1984	1985	1986	1987	1988 F	1989 F
	\$ million									
Feed	20,971	20,855	18,592	21,725	19,852	18,015	16,179	16,093	22,000	20,000 to 24,000
Livestock	10,670	8,999	9,684	8,814	9,498	8,958	9,744	12,014	13,000	11,000 to 14,000
Seed	3,220	3,428	3,172	2,993	3,448	3,350	2,984	3,009	3,000	3,000 to 4,000
Farm-origin inputs	34,861	33,282	31,448	33,532	32,798	30,323	28,907	31,116	38,000	36,000 to 40,000
Fertilizer	9,491	9,409	8,018	7,067	7,429	7,259	5,787	5,392	6,000	6,000 to 8,000
Fuels & oils	7,879	8,570	7,888	7,503	7,143	6,584	4,790	4,442	4,000	4,000 to 6,000
Electricity	1,526	1,747	2,041	2,146	2,166	2,150	1,942	2,393	3,000	2,000 to 3,000
Pesticides	3,539	4,201	4,282	4,154	4,767	4,994	4,485	4,588	5,000	5,000 to 6,000
Manufactured inputs	22,435	23,927	22,229	20,870	21,505	20,987	17,004	16,815	17,000	18,000 to 22,000
Short-term interest	8,717	10,722	11,349	10,615	10,396	8,821	7,795	7,305	8,000	7,000 to 9,000
Real estate interest 1/	7,544	9,142	10,481	10,815	10,733	9,878	9,131	8,202	8,000	7,000 to 9,000
Total interest charges	16,261	19,864	21,830	21,430	21,129	18,699	16,926	15,508	16,000	15,000 to 17,000
Repair & maintenance 1/ 2/	7,075	7,021	6,428	6,529	6,416	6,370	6,426	6,546	7,000	7,000 to 8,000
Contract & hired labor	9,293	8,931	10,075	9,725	9,729	9,799	9,879	10,747	11,000	11,000 to 13,000
Machine hire & custom work	1,823	1,984	2,025	1,896	2,170	2,184	1,810	1,956	2,000	2,000 to 3,000
Marketing, storage, & transportation	3,070	3,523	4,301	3,904	4,012	4,127	3,652	3,823	3,000	4,000 to 5,000
Misc. operating expenses 1/	6,881	6,909	7,262	9,089	9,106	8,232	7,993	8,311	7,000	6,000 to 7,000
Other operating expenses	28,142	28,368	30,089	31,143	31,433	30,712	29,760	31,383	31,000	32,000 to 36,000
Capital consumption 1/	21,474	23,573	24,287	23,873	23,105	20,847	18,916	17,348	18,000	17,000 to 18,000
Taxes 1/	3,891	4,246	4,036	4,469	4,059	4,231	4,125	4,345	4,000	4,000 to 5,000
Net rent to nonoperator landlord	6,075	6,184	6,059	5,060	8,640	8,158	6,698	6,987	7,000	7,000 to 8,000
Other overhead expenses	31,440	34,003	34,381	33,402	35,805	33,236	29,739	28,680	29,000	28,000 to 31,000
Total production expenses	133,139	139,444	139,980	140,377	142,669	133,957	122,335	123,502	132,000	136,000 to 140,000

1/ Includes operator dwellings. 2/ Beginning in 1982, miscellaneous operating expenses include other livestock purchases dairy assessments. Totals may not add because of rounding. F = forecast.

Information contacts: Chris McGath (202) 786-1804, Andy Bernat (202) 786-1808.



Table 37.—CCC Net Outlays by Commodity &amp; Function

COMMODITY/PROGRAM	Fiscal year										
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989 E	1990 E
	\$ million										
Feed grains	1,286	-533	5,397	6,815	-758	5,211	12,211	13,967	9,053	3,042	5,562
Wheat	879	1,543	2,238	3,419	2,536	4,691	3,440	2,836	678	279	1,052
Rice	-76	24	164	664	333	990	947	906	128	999	959
Upland cotton	64	336	1,190	1,363	244	1,553	2,142	1,786	666	2,538	994
Tobacco	-88	-51	103	880	346	455	253	-346	-453	-569	-280
Dairy	1,011	1,894	2,182	2,528	1,502	2,085	2,337	1,166	1,295	662	893
Soybeans	116	87	169	288	-585	711	1,597	-476	-1,676	-32	116
Peanuts	28	28	12	-6	1	12	32	8	7	5	4
Sugar	-405	-121	-5	49	10	184	214	-65	-246	0	0
Honey	9	8	27	48	90	81	89	73	100	60	55
Wool	35	42	54	94	132	109	123	152	1/ 5	89	98
Operating expense	157	159	294	328	362	346	457	535	614	583	635
Interest expenditure	518	220	-13	3,525	1,064	1,435	1,411	1,219	395	283	284
Export programs	-669	-940	65	398	743	134	102	276	200	116	107
Other	-113	1,340	-225	-1,542	1,295	-314	486	371	1,695	5,788	1,100
Total	2,752	4,036	11,652	18,851	7,315	17,683	25,841	22,408	12,461	13,843	11,579
FUNCTION											
Price-support loans (net)	-66	174	7,015	8,438	-27	6,272	13,628	12,199	4,579	-153	1,011
Direct payments											
Deficiency	79	0	1,185	2,780	612	6,302	6,166	4,833	3,971	5,889	7,006
Diversion	56	0	0	705	1,504	1,525	64	382	8	0	0
Dairy termination	0	0	0	0	0	0	489	587	260	200	189
Other	25	0	0	0	0	0	27	60	0	83	0
Disaster	258	1,030	306	115	1	0	0	0	6	0	0
Total direct payments	418	1,030	1,491	3,600	2,117	7,827	6,746	5,862	4,245	6,172	7,195
1988 crop disaster	0	0	0	0	0	0	0	0	0	3,613	0
Emergency livestock/											
forage assistance	23	329	16	0	0	0	0	0	31	902	8
Purchases (net)	1,681	1,602	2,031	2,540	1,470	1,331	1,670	-479	-1,131	-10	519
Producer storage											
payments	254	32	679	964	268	329	485	832	658	319	174
Processing, storage,											
& transportation	259	323	355	665	639	657	1,013	1,659	1,113	654	443
Operating expense	157	159	294	328	362	346	457	535	614	583	635
Interest expenditure	518	220	-13	3,525	1,064	1,435	1,411	1,219	395	283	284
Export programs	-669	-940	65	398	743	134	102	276	200	116	107
Other	177	1,107	-281	-1,607	679	-648	329	305	1,757	1,364	1,203
Total	2,752	4,036	11,652	18,851	7,315	17,683	25,841	22,408	12,461	13,843	11,579

1/ Fiscal Year 1988 wool & mohair program outlays were \$130,635,000 but include a one-time advance appropriation of \$126,108,000, which was recorded as a wool program receipt by treasury. E = estimated in the fiscal 1990 President's Budget. Minus (-) indicates a net receipt (excess of repayments or other receipts over gross outlays of funds).

Information contact: Richard Pazdalski (202) 447-5148.

## Transportation

Table 38.—Rail Rates; Grain &amp; Fruit/Vegetable Shipments

	Annual			1988						
	1986	1987	1988	1987 Dec	July	Aug	Sept	Oct	Nov	Dec
Rail freight rate index 1/ (Dec. 1984=100)										
All products	100.7	100.1	104.7	100.1	105.2	105.4	105.3 P	105.4 P	105.3 P	105.4 P
Farm products	99.6	99.3	105.4	99.3	106.0	108.4	107.5 P	107.5 P	107.8 P	107.8 P
Grain	98.9	98.7	105.2	98.5	106.4	109.3	107.8 P	107.8 P	108.1 P	108.2 P
Food products	99.9	98.6	103.2	98.7	103.7	103.7	103.7 P	103.7 P	103.7 P	103.6 P
Rail shipments										
Rail carloadings (1,000 cars) 2/	24.4	29.1	30.5	29.2 P	29.7 P	27.1 P	28.9 P	30.7 P	27.1 P	27.5 P
Fresh fruit & vegetable shipments										
Piggy back (1,000 cwt) 3/ 4/	629	584	531	588 P	662 P	509 P	489 P	404 P	409 P	419 P
Rail (1,000 cwt) 3/ 4/	563	656	604	660 P	481 P	154 P	566 P	585 P	691 P	711 P
Truck (1,000 cwt) 3/ 4/	9,031	9,237	9,527	9,137 P	9,231 P	8,649 P	8,369 P	8,711 P	9,097 P	9,341 P
Cost of operating trucks										
hauling produce 5/										
Owner operator (cts./mile)	113.1	116.3	118.7	118.5	118.2	118.6	118.5	118.6	119.6	120.4
Fleet operation (cts./mile)	113.6	116.5	118.4	118.3	118.2	118.2	118.6	118.3	119.1	120.1

1/ Department of Labor, Bureau of Labor Statistics. 2/ Weekly average; from Association of American Railroads. 3/ Weekly average; from Agricultural Marketing Service, USDA. 4/ Preliminary data for 1988 & 1989. 5/ Office of Transportation, USDA. P = preliminary.

Information contact: T.O. Hutchinson (202) 786-1840.

## Indicators of Farm Productivity

Table 39.—Indexes of Farm Production Input Use & Productivity <sup>1</sup>

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988 2/
1977=100										
Farm output	111	104	118	116	96	112	118	111	110	98
All livestock products 3/	104	108	109	107	109	107	110	110	113	116
Meat animals	103	107	106	101	104	101	102	100	102	105
Dairy products	101	105	108	110	114	110	117	116	116	118
Poultry & eggs	114	115	119	119	120	123	128	133	144	149
All crops 4/	113	101	117	117	88	111	118	109	106	88
Feed grains	116	97	121	122	67	116	134	123	105	73
Hay & forage	108	98	106	109	100	107	106	106	103	88
Food grains	108	121	144	138	117	129	121	106	106	98
Sugar crops	94	97	107	96	93	95	97	106	112	105
Cotton	102	79	109	85	55	91	94	69	104	107
Tobacco	80	93	108	104	75	90	81	63	64	70
Oil crops	129	99	114	121	91	106	117	110	106	88
Cropland used for crops	100	101	102	101	88	99	98	94	87	87
Crop production per acre	113	100	115	116	100	112	120	115	121	102
Farm input 5/	105	103	102	99	97	95	92	87	86	--
Farm real estate	103	103	104	102	101	97	95	93	92	--
Mechanical power & machinery	104	101	98	92	88	84	80	75	72	--
Agricultural chemicals	123	123	129	118	105	121	123	111	111	--
Feed, seed, & livestock purchases	115	114	108	108	110	106	106	103	108	--
Farm output per unit of input	105	101	116	118	99	118	128	127	127	--
Output per hour of labor										
Farm 6/	113	109	123	125	99	121	139	139	142	--
Nonfarm 7/	99	99	100	99	102	105	106	108	108	--

1/ For historical data & indexes, see Economic Indicators of the Farm Sector: Production & Efficiency Statistics, 1986, ECIFS 5-6. 2/ Preliminary indexes for 1988 based on Crop Production: 1988 Summary, released in January 1989, & unpublished data from the Agricultural Statistics Board, NASS. 3/ Gross livestock production includes minor livestock products not included in the separate groups shown. It cannot be added to gross crop production to compute farm output. 4/ Gross crop production includes some miscellaneous crops not in the separate groups shown. It cannot be added to gross livestock production to compute farm output. 5/ Includes other items not included in the separate groups shown. 6/ Economic Research Service. 7/ Bureau of Labor Statistics. -- = not available.

Information contact: Jim Hauver (202) 786-1459.

## Food Supply and Use

Table 40.—Per Capita Consumption of Major Food Commodities  
(See the January-February 1989 issue.)

Information contact: Judy Putnam (202) 786-1870.



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